DOCUMENT RESUME

ED 235 384 CE 037 323

TITLE	Functional Literacy and the Workplace. Proceedings of a National Invitational Conference (Washington, District of Columbia, May 6, 1983).
INSTITUTION	American Council of Life Insurance, Washington, D.C.
PUB DATE	83
NOTE	68p.
AVAILABLE FROM	Order Fulfillment, American Council of Life Insurance, 1850 K Street, NW, Washington, DC 20006 (Order No. 125; single copy free).
PUB TYPE	Collected Works - Conference Proceedings (021) -- Viewpoints (120) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Adult Education; Basic Skills; Education Work Relationship; Elementary Secondary Education; *Employment; *Employment Potential; *Functional Literacy; *Insurance Companies; Job Skills; Literacy Education; Postsecondary Education; School Business Relationship; Unemployment

ABSTRACT

These proceedings are from a conference that brought together representatives of the life and health insurance business, the private sector, labor, education, and government to address the literacy problem. An executive summary is followed by an introduction to the proceedings that gives an overview of the 11 presentations and by the opening presentation. Citing examples of the cost of illiteracy, Paul Simon underscores the need for improved skills in an information society, and makes recommendations to eliminate illiteracy among the unemployed and those on welfare. Herman Niebuhr, Jr. cites the obsolescence of the present organization and structure of education as a major cause of education problems. Regarding workplace needs, James Henry calls the state of basic skills in the workplace a problem of "crisis proportion," while Donald Mann discusses a need for better entry-level job skills in financial services and suggests ways in which business can help urban schools. Paul Delker expands upon the definition of literacy. Stanley Karson and Robert Feagles describe business responses to the literacy problem. The response of the New York State Education Department is discussed by Willard Daggett. Connie Sutton traces the evolution of literacy programs in two-year colleges. Harold Hodgkinson considers future directions for literacy efforts. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED235384

FUNCTIONAL LITERACY AND THE WORKPLACE

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Proceedings of a
National Invitational Conference
sponsored by
Education Services
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

CE031323

This conference, held May 6, 1983, is one of a series sponsored by Education Services to focus attention on issues of importance to leaders in business and education.

Publication of the proceedings does not imply Council endorsement of the views expressed. However, the Council hopes that the ideas presented will focus attention and stimulate discussion concerning this very important and timely topic. For further information contact Dr. Iris M. Elfenbein, Education Services, American Council of Life Insurance.

CONTENTS

EXECUTIVE SUMMARY 1

INTRODUCTION TO THE PROCEEDINGS 5
Iris M. Elfenbein

WELCOME TO THE CONFERENCE 9
Richard S. Schweiker

PERSPECTIVES ON LITERACY

Illiteracy: The Cost to the Nation 13
Paul Simon

Society's Stake in a Literate Population 17
Herman Niebuhr, Jr.

EXPECTATIONS OF THE WORKPLACE

Basic Skills in the U.S. Workforce 21
James F. Henry

Basic Skills in Financial Services 25
Donald C. Mann

DEFINING ADULT FUNCTIONAL LITERACY 31
Paul Delker

SOME RESPONSES TO THE LITERACY PROBLEM

Business

The Center for Corporate Public Involvement 35
Stanley G. Karson

The Travelers Insurance Company 41
Robert W. Feagles

Education

New York State Education Department 47
Willard Daggett

Two-Year Colleges 51
Connie Sutton

FUTURE DIRECTIONS FOR LITERACY EFFORTS 53
Harold L. Hodgkinson

CONFERENCE PARTICIPANTS 61

CONFERENCE PLANNING COMMITTEE 67

EXECUTIVE SUMMARY

There is no question that the effects of illiteracy are devastating to the social, economic and political life of the country. With its cost to government, the community and the private sector, illiteracy is far more than an educational problem. It is a challenge to all sectors of society, and they must work together to conquer it. To foster cooperation and provide a forum for discussion, the American Council of Life Insurance sponsored a national conference, FUNCTIONAL LITERACY AND THE WORKPLACE, attended by leaders from business, education, labor and government.

The State of Basic Skills

As America continues to move towards an information service economy utilizing computers and other "high tech" equipment, the complexity of the workplace increases, making greater literacy demands on workers than ever before. But the state of employee basic skills is a problem of crisis proportions. Corporate and union leaders agree that many entry level workers lack minimal competence in reading, mathematics, writing, speaking, listening, and problem-solving skills. In addition, they are poorly informed about workplace expectations and they lack effective interpersonal skills.

About one out of five adults lacks the basic skills and knowledge to function in society, while 40 million are just marginally literate. Among all American 17-year-olds, 13 percent (535,600) are functionally illiterate and, of those, almost 40 percent are minority youth.

The cost to the nation is enormous. Literacy and employability have a direct relationship to each other. People with less than six years of schooling are four times more likely than others to be on welfare. Costs for custodial care of prisoners, of whom approximately 50 percent are functionally illiterate, are $6.6 billion. Business loses millions annually because of low productivity, errors, accidents and employee turnover.

The Schools

Literacy is defined according to the needs and demands of society; the effectiveness with which people relate to their environment is a measure of it. Literacy includes not only knowing the 3 R's, but the ability to apply them in different situations. Employers find that many workers cannot do this.

The changing workplace needs generated by our information economy mean that new and expanded demands are being made on schools, especially urban ones, just at a time of declining educational achievement and ever-decreasing resources for public schools. Most students in urban schools are "minority" students, many of whom are children of poverty or recent immigrants whose many different cultural and language backgrounds present major challenges to the schools. Though the reading and math scores of elementary school youngsters showed some improvement recently, there is little change in the achievement of high school youth. And functionally illiterate adults present other problems. But there is a resurgence of interest in the problems of schools. By the end of 1983, there will be 23 separate reports dealing with the condition of public education in America. It is hoped that they will begin to generate reform.

The Private Sector

A new educational model that will provide a more effective learning system and can produce workers able to cope with our "high tech" information society is needed. Partnerships between schools and businesses must be an important part of this new model.

The critical and immediate need for increased education services for adults with minimal literacy skills is being partially met by the private sector, which provides 80 percent of the nation's jobs. To meet its human resource needs, business has been forced to create its own education programs. This "shadow system" of education provides costly remedial and basic skills instruction for workers in order to increase productivity; alleviate employee discontent; and reduce high turnover rates, employee errors, and accidents. It is also an expression of corporate social responsibility.

What's Being Done

Things are happening. Congressional hearings are being held; libraries are sponsoring literacy activities; state education departments are consulting with business to develop new programs; community colleges and businesses are cooperating. Together they are developing courses for workers, conferences to develop awareness and action programs, and advertising campaigns to promote parental involvement and community interest in schools.

The life insurance business,through its Center for Corporate Public Involvement, has endorsed a "Hard-to-Employ" initiative that includes assisting schools; "adopting" schools; supporting job training programs for dropouts; developing compensatory and in-service training programs; and providing daycare support, health programs and counseling for present and future employees.

Some companies, like The Travelers Insurance Company, have developed exemplary programs to overcome functional illiteracy. The MOST/BEST program for the chronically unemployed has been operated by The Travelers for 16 years and has provided employment for 616 of the 791 people who participated. The Travelers also sponsors work-study programs for high school youth and has begun a program for high school students with high potential.

The New York State Education Department, looking towards the 21st century, established a task force of business people, educators and social scientists to identify the future needs of the workplace in New York. Built around a set of core literacy competencies identified by the task force, new programs for New York's high schools are being initiated.

Our society can do more, especially for those who make up the "hard-to-employ." Literacy programs for people in prison and for those on welfare could be developed. Unemployed workers could be encouraged to participate in literacy training programs, either as students or as teachers. Job placement programs for these people should be instituted.

Strategies for Successful Partnerships and Programs

Experience has demonstrated that successful cooperative ventures among different sectors result from sustained efforts by local partnerships to meet local needs. They depend more on cooperation than on funding. They depend on shared objectives and common attitudes. They need school administrators who view the education system as the corporate counterpart and need business executives who recognize their vested interest in the local schools that educate their work force.

Successful worksite literacy programs, whether developed solely by business or in collaboration with educators, can be identified by certain characteristics. They establish the employee/employer relationship immediately; state program expectations clearly; assure jobs upon satisfactory completion of the training program; make learning job-relevant; provide a physical environment that simulates the workplace; continue welfare and assistance payments during the training period; and offer individual counseling for participants in relation to problems about health, welfare, housing, day care, police and schooling.

To overcome the national literacy problem we must confront it squarely and plan together to develop adequate programs that meet the needs of all sectors of American society. Such collaboration can provide many benefits. The most important one is a healthy, stable society.

INTRODUCTION TO THE PROCEEDINGS

Iris M. Elfenbein

Dr. Iris M. Elfenbein is Director of the Teacher Education Program of the American Council of Life Insurance. Before joining the Council, Dr. Elfenbein was a faculty member in the Division of Education at Herbert H. Lehman College, City University of New York and at Teachers College, Columbia University. She also was a research associate for the American Association of Colleges for Teacher Education and the City University of New York.

For several decades the life insurance business has sought to foster cooperation between business and education, working with educators on issues of mutual concern. The two sectors have much in common, sharing concerns about social problems that affect Americans, their families and the quality of their lives. One such problem of major significance is that of adult illiteracy.

The United States has entered the era of the "Information Society." Estimates indicate that 60 percent of the work force is employed in information service jobs, many of which are found in the financial services industries—insurance, banking and securities. Yet many workers are inadequately prepared for the jobs they hold. A study of education in business prepared by the Conference Board in 1977 reported that 20 percent of the banks and insurance companies sampled provided remedial and basic literacy courses because their employees lacked the necessary skills. Unfortunately, the situation has not changed. Now, more than ever, there is a clear need for improved adult literacy in the workplace.

Reports indicate that 23 million Americans (1 out of 5 adults) lack the reading and writing skills necessary to meet the demands of daily living, while 40 million are just marginally capable of being productive workers. It is reported that 13 percent of American high school graduates have achieved reading and writing competence on the sixth grade level or less. At the same time, major advances in technology are beginning to affect virtually every office and factory job, making it increasingly necessary for employees to demonstrate higher levels of literacy for entry level jobs and for job advancement.

The specter of illiteracy poses other problems. Instead of contributing to the nation's productivity, these people diminish the efficiency of the workplace. Their sense of self-esteem, self-worth and pride is directly affected by their

deficits. Because they neither read nor listen well nor communicate effectively, they often misuse equipment and cause accidents that jeopardize their own and others' safety. Few illiterate or marginally literate employees will have the opportunity to move beyond their entry-level jobs; those who are unemployed may never find jobs. The unemployed and unemployable consume tax dollars instead of contributing to the tax base.

As a labor-intensive service industry that employs large numbers of support staff, the life insurance business is directly affected by poorly prepared entry-level workers. The business needs employees who have good basic language, communication and computational skills and can learn new skills with relative ease. New demands are made on insurance company workers as typewriters are replaced by word processors, for example, or as computers efficiently record and store information, eliminating the more familiar means of manual record keeping. The use of new technology requires additional, more complex skills. A large New York-based insurance company estimates that 70 percent of its dictated correspondence must be redone at least once because of human errors. In a Boston-based insurance company with offices throughout the country, half the employees are support staff, many employed as clerical workers. Inadequate literacy and entry-level clerical skills pose a serious threat to productivity and efficiency, and are potentially costly, both in lost profit and in human capital. Turnover is frequent; morale is low.

The literacy problem not only affects business, but every sector of the society. Education, business and government all have a stake in its resolution. Though each often has worked alone to seek solutions, a collaborative effort could result in a synergism more effective than any individual efforts.

The major issue to consider is how we can develop our human capital and avoid further deterioration. How can those with genuine concern and a heightened sense of social responsibility counter the personal, educational and employment problems of the minimally literate? How can the nation deal with the social, economic and political problems created by these handicapped people? In what way can business, education and government work together to resolve the problem and promote effective human capital development?

To address this national concern, the American Council of Life Insurance sponsored a conference that brought together representatives of the life and health insurance business, other segments of the private sector, labor, education and government. The conference, FUNCTIONAL LITERACY AND THE WORKPLACE, sought to advance efforts of these sectors to apply their resources individually and collaboratively to work towards the resolution of the problem.

Some one hundred leaders from the interested sectors of the economy heard presentations that fell into three categories: those that provided a general perspective on literacy; those written from a business perspective, and those that represented the views of educators. The *general perspective* was provided by Paul Simon, Paul Delker, and Harold Hodgkinson, while the *business* perspective was described by James Henry, Donald Mann, Stanley Karson and Robert Feagles. Herman Niebuhr, Willard Daggett and Connie Sutton talked about literacy needs and activities in *education.*

All agreed that illiteracy or marginal literacy is far more than simply an educational problem. Illustrations underscored the immense cost to society as

a whole, to business, to education, and to the persons themselves. Indeed, the effects of illiteracy are devastating to the social, economic and political life of the country.

Citing examples of the cost of illiteracy gleaned from national studies and from his own constituency, Paul Simon underscored the need for improved skills in our information society. He described the current interest in the problem among federal officials. Among the recommendations Simon made was the development of a New Deal WPA-like program to eliminate illiteracy among the unemployed and those on welfare. According to Herman Niebuhr, one of the major causes of the education problems confronting America is the obsolescence of the present organization and structure of education. Identifying five "megatrends" that can lead to a fundamental economic and educational transformation and seven "implementing strategies" to improve American Education, Niebuhr called for a new learning system that will reorganize the learning process.

The workplace expects certain skills of entry-level employees. Corporations and labor share similar perceptions and expectations, but educators do not, reported James Henry. Quoting data from a study conducted by the Center for Public Resources, Henry called the state of basic skills in the workplace a problem of "crisis proportion." He cited deficiences in reading, math, writing, speaking, listening and problem solving. Donald Mann continued the discussion of workplace needs and expectations, citing widespread changes that have occurred in the Prudential Insurance Company. Occasioned by the introduction of the computer and the increasing complexity of the business, there is, he said, a need for better entry-level job skills. Mann suggested several ways in which business can help urban schools work on their problems.

Paul Delker expanded upon the definition of literacy, stressing its functional aspects. The ability to read and write is not a true test of literacy in this post-industrial society that is based on technological change and instantaneous communications, he said, as he explained the dimensions of illiteracy revealed in recent studies.

Efforts are being made by business and education to address the literacy problem. Reviewing the history of the life and health insurance industry's involvement in social responsibility programs, Stanley Karson described the "Hard-to-Employ" program currently supported by member companies. He stressed that business and communities must work together and cited the growing involvement of insurance companies in "Adopt-a-School" programs. The extensive involvement of The Travelers Insurance Company in a variety of education programs requiring collaboration with schools and the community was discussed by Robert Feagles. The successful "Most/Best" program, designed to recruit, train and employ minority workers, operational now for 16 years, was described in detail.

Looking toward the 21st century, the New York State Education Department asked business what skills and knowledge will be required in the next two decades. The responses yielded a core of competencies in which literacy is the basic requirement. Willard Daggett described the new program based on these core competencies, and the plans for its statewide implementation. Bound by few "traditional trappings," the community college is an ideal institution to

deliver adult literacy instruction and provide lifelong education, said Connie Sutton. She traced the evolution of literacy programs in the two-year colleges and emphasized that literacy is not only what we need to know for survival; it also is what we can do to help others achieve and grow as individuals."

In the final presentation, Harold Hodgkinson examined current data on literacy and schooling and suggested that many of the problems faced by urban schools are influenced by demographic factors. Looking to the future, Hodgkinson suggested that the growth of "high tech" jobs will not supplant the need for workers in service occupations. It is important, he noted, that we be aware of the literacy expectations of different groups and address these differences as we put together tomorrow's education agenda.

WELCOME TO THE CONFERENCE

Richard S. Schweiker

Mr. Richard S. Schweiker is President of the American Council of Life Insurance. Prior to this, he held the post of Secretary of Health and Human Services. Mr. Schweiker served eight years in the House of Representatives, representing Pennsylvania's 13th District, and twelve years in the Senate. While in Congress he dealt with both authorizing legislation and annual appropriations in the areas of health, education, welfare, labor, and aging.

Since last week, the news media have given a good deal of attention to a report issued by the National Commission on Excellence in Education, an 18-member group appointed by Secretary of Education Terrel Bell to examine the quality of American education. Its report, "A Nation at Risk: The Imperative for Educational Reform," suggests that the quality of American education has deteriorated in the last two decades. It cited these data:

- Some 23 million adults are functionally illiterate by the simplest tests of everyday reading, writing and comprehension;
- About 13 percent of all 17-year olds can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent;
- Average achievement of high school students on most standardized tests is now lower than it was 26 years ago, when Sputnik was launched;
- Many 17-year olds do not possess the "higher order" intellectual skills we should expect of them. Nearly 40 percent cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps;
- Business and military leaders complain that they are required to spend millions of dollars on remedial education and training programs in such basic skills as reading, writing, spelling and computation. The Department of the Navy, for example, reported to the Commission that one-quarter of its recent recruits cannot read at the ninth-grade level, the minimum needed simply to understand written safety instructions. Without remedial work they cannot even begin, much less complete, the sophisticated training essential in much of the modern military.

These findings reinforce the need for discussions and programs that address

these issues. Conferences like this one provide the opportunity for business, education and government representatives to come together to take the first steps. We in the life insurance business are concerned about the problems caused by illiteracy and the lack of basic skills among entry-level workers, as we know you, too, are. We are pleased to be able to sponsor this conference. We welcome you.

The American Council of Life Insurance, a trade association representing the life insurance companies, has a long history of concern about and involvement in societal problems, certainly including education. We have sought to foster cooperation in the private sector in general, in our business and in education.

The Council and the Health Insurance Association of America support the Center for Corporate Public Involvement, which for 10 years has assisted member companies seeking to deal with community and social problems. The Center has been a catalyst for initiating new activities and reporting socially responsible activities in which our companies engage. The Center's activities range from sponsoring nation-wide long-range health studies to an effort to focus on structural unemployment, with particular attention to the needs of minority youth.

Education Services, the sponsor of this conference, is a part of our Public Relations Division. This group has worked with educators on all levels for almost four decades. It has developed education publications for teachers and students on topics related to consumer education, financial planning and life and health insurance. Our materials and services reach some 30,000 teachers annually. We provide support for training workshops and materials to improve the teaching of financial planning education for faculty in the nation's secondary schools, two- and four-year colleges and adult education centers.

Another major Education Services activity is the development of programs that bring leaders from higher education and business together. Our Business Executive in Residence Program encourages top-level life insurance executives to spend two to four weeks on college campuses serving as lecturers and resource persons. This encourages an exchange of ideas and perspectives. We also occasionally provide opportunities for academics to spend a few weeks in residence in life insurance companies.

Conferences for leaders from academe and business are sponsored annually by Education Services. Under the auspices of the University Advisory Council, the conferences address issues of concern to both groups. For example, in 1976 we sponsored a conference dealing with "Alternatives for Ph.D.'s in the Humanities." In the period 1978-1980, we sponsored a series of regional conferences dealing with the subject "Fiscal Issues in Higher Education." This resulted in a series of publications. Every five years we hold conferences referred to as "Arden House Conferences" that are broader in perspective and deal with the effect of multiple forces on American society.

Today's conference is another manifestation of our concern with social problems. In this case, the problem of literacy is of direct concern to us in its effect on efficient operation and productivity. We are a labor-intensive service business and we need well-prepared, competent workers. The importance of effective development of our human capital cannot be minimized. This confer-

ence provides an opportunity to examine this problem and will seek ways to deal with it because this issue is also of concern to other businesses, education and government. We are natural partners in the search for a solution.

PERSPECTIVES ON LITERACY

Illiteracy: The Cost to the Nation

Paul Simon

Congressman Paul Simon, a Democrat from Illinois' 22nd Congressional District, was elected to the House of Representatives in 1974. Now in his fifth term, he is a member of the Education and Labor Committee, where he chairs the Subcommittee on Postsecondary Education. He also serves on the Subcommittee on Employment Opportunities and the Subcommittee on Select Education. In 1983, Rep. Simon joined the Science and Technology Committee.

It's an honor to be introduced by Dick Schweiker, who was an exceptionally fine member of Congress and of the Cabinet. Dick Schweiker made a much above-average contribution in every area he touched, and the American Council of Life Insurance is fortunate to have his services.

I am pleased to be here also because the American Council of Life Insurance has contributed to the betterment of our society in a variety of ways, and this is to the credit of your business. If I can cite one example: in the struggle against inflation, your industry was the only business that went after this problem area in a really systematic way. I was part of a Task Force on the Budget Committee that tried, inadequately, to grope with this monster. But the only business that really did anything was not the banking industry, not the savings and loans, not any one of a number of industries like automobiles, construction, or others that were devastated by inflation. It was the life insurance business, the American Council of Life Insurance.

The question of literacy in our country is an important one that we have hidden up to now. We had better take it out of the closet and face up to it.

Let me just give you a statistic from the Census Bureau in a breakdown by Congressional districts of data from the 1980 Census. My district is the third lowest in average years of education and income in the state of Illinois. The income level goes down for people in our society who cannot read and write, and so their ability to buy an insurance policy, an automobile, or a house diminishes.

A second general principle to keep in mind is that the future of our economy is going to be keyed to brains, not brawn.

Now, where are we in this area of illiteracy? Dick cited "Excellence in Education," the government education report that was issued the other day—certainly an outstanding report, except that it doesn't say how we get from here

to there. It has that one massive, gaping hole in it. Its conclusions, it seems to me, are sound.

Still, it is too cautious; it could have been more sweeping. For example, it states that 40 percent of minority youth are functionally illiterate. The Department of Education (and I questioned the Secretary of Education directly on this because it was so startling) said that, among black 17-year-old youths, 47 percent are functionally illiterate. Among Hispanic 17-year-olds, the figure is 56 percent. They accumulate these statistics from tests we give in our schools. My guess is that if you took a test in poor, rural areas, much like mine (where I live it's a sort of Appalachia of Illinois), you might come up with some similar statistics.

What these figures simply suggest is that we have a massive problem. More than 50 percent of those in prisons are functionally illiterate. And they cost our nation $6.6 billion for custodial care, not counting what happens to the victims. Seventy-five percent of the unemployed have inadequate reading and writing skills. Eighty-five percent of the juveniles who go into court are functionally illiterate. Those who have less than six years of school are four times more likely than others to end up on welfare.

Now, these statistics say to me—aside from the humanitarian concern—that it simply makes sense financially to do something about this problem.

In my Congressional district, I hold open office hours. I go into little towns all over; there are about 200 small towns in my district. People come in with whatever their problem is—Social Security, black lung, political, whatever it is. Federal law requires people to sign a consent form to authorize me to go into their records, and frequently when the people come in, I will ask them to sign the form. Often they will ask, "Is it okay if my wife signs?" or "Is it okay if my husband signs?" You understand immediately what the situation is. Sometimes you find them drawing their names very, very carefully, and you realize it's the only thing they can write.

We also have high unemployment in this area. I have eight counties with over 20 percent unemployment. A lot of people are desperate for jobs, let me tell you. But when they come in and say they're desperate for a job, one of the questions I ask is, "Can you read and write?" Too frequently, there is that awkward moment of silence. They don't just say automatically, "No, I can't"; they're embarrassed by it. There's that pause. But the answer is inevitable.

These are people who get by. They recognize the stop sign. They can do other things. But little things happen. I noticed in the material that was sent to me the story of a man who had car trouble. Someone picked up the accident victim's wife and three children and took them to his home while the car was being fixed. He gave the man in the accident his name and said, "You can call me." The victim got the name, but since he couldn't read, to call he had to find someone to read the phonebook—and he went through all kinds of complications to find his family.

All I'm suggesting is that these are not just statistics. These are real people. Some of those who can't read and write are in their 60s or 70s, but many of them are people 38 years old, 27 years old. Many went to schools where a learning disability went undetected. There was no one in the school to deal with a learning disability, and so they just dropped out.

What's happening? Well, we're paying a little attention now. We had some hearings on the problem. It's the first time Congress has had hearings on illiteracy. I'm pleased to say that Barbara Bush, Vice President George Bush's wife, has taken an interest in the issue. We have had some breakfast meetings with Secretary Bell and Barbara Bush and a few other persons to discuss what can be done. The Secretary's staff is putting together a plan that might clear the Office of Management and Budget.

The libraries in the nation are beginning to do something about it. Yesterday, we voted out of the Subcommittee I chair, the Library Services and Construction Act Renewal bill, and I have included a separate title which gives some money to libraries for assistance to work on illiteracy: not much money, about 5 million dollars, but it's at least a little help. I like the idea of libraries being among those that tackle this because we have to face the fact that illiteracy today is like mental retardation was not too many years ago. Then, parents didn't want to acknowledge they had a child who was retarded; the child was kept at home. Today, we've finally moved into the open and we say, "How can we get Connie or Jane to participate in our society?"

Illiteracy, though, is something one hides. If you're illiterate, you don't want to walk into a grade school or a high school. But there is no social stigma in walking into a library or a community college. Church basements are fine. We have to figure out how we get people to open themselves up on the problem.

Let me touch on a few more points.

1. We have to move more aggressively in identifying the weaknesses in present programs. In our prisons, we ought to identify those who have the problem, and we ought to move on it. I don't suggest that everyone in our prisons can be rehabilitated. But it is true that the majority of people who enter prison without a marketable skill or the ability to read and write come out of prison unchanged. That ought to change.

2. In the area of welfare, we have to take a look at who signs up. You don't have to ask them if they can read or write. If they can't fill out the form, that ought to be noted. We ought to get help for them. We shouldn't simply be saying we're going to give you a check. A check, yes; but let's give people some help on their problems. Unemployment compensation—the same. A huge number of people are involved and we ought to find the illiterates among them.

3. Unemployment is a permanent phenomenon. The demand for unskilled labor is going down; the pool of unskilled labor is growing. To the extent that we can, we should get people working in the private sector. We must turn the liability of unemployment into an asset and let people feel like they're participants in our society. It is not a new idea. We did it once before, in the 1930s under the WPA. And, while our needs are different and our society is different (many more women are working today, for example), we ought to do what we did then, turn the liability of unemployment into a national asset.

Under the WPA, one and a half million adult Americans were taught how to read and write. What if—in addition to planting 200 million trees a year, operating daycare centers, and doing some other things that enrich society—we

took the unemployed with skills and applied that to the problem of those who cannot read and write?

Another problem is the quality of our schools. The quality of our teachers has been slipping. Part of it is because women today have choices other than nursing and teaching. My own daughter wants to become a lawyer.

There are two related problems. First, those who are going into teaching score at the bottom of the SAT and ACT tests of the various professions. In the last seven years, the verbal scores of those going into teaching have dropped 80 points.

Secondly, studies in North Carolina and Wisconsin show that among those who are in teaching—the top 10 percent in ability—a high percentage are leaving, whereas among the bottom 10 percent in ability, a high percentage remain in teaching. So it is a question of how we can keep good people in teaching and how we attract the brighter young people to it.

Finally, we have to give a much greater priority to education generally. In Japan,when you attend elementary school and high school, you go an average of 250 days per year. In the United States—180 days a year. In the Soviet Union, school is six days a week, not five. In the Soviet Union, you start foreign languages either in the first grade or the fourth grade and then you take them all the way through college. We are the only nation where one can go through grade school, high school, college, get a doctorate, and never have a year of a foreign language. We have more school districts than physics teachers. Japan, with half our population, last year graduated twice as many electrical engineers as the U.S.

Part of paying attention to education is paying attention to this problem of illiteracy. It is hidden; it is not the kind of issue that has sex appeal. I am pleased that your group is taking a stance in facing up to it. This is the first time a non-education group has asked me to address the subject, which is to your credit.

PERSPECTIVES ON LITERACY

Society's Stake In a Literate Population

Herman L. Niebuhr, Jr.

Herman L. Niebuhr, Jr. served as Director for the Center for Community Studies, then as Associate Vice President for Urban Affairs at Temple University. As Vice President and Assistant to the President for Planning, he served as the university representative to the Delaware Valley Regional Planning Council for Higher Education, in which he took a leading role in the development of CLEO, the Compact for Lifelong Educational Opportunities, aimed at strengthening the "Human Learning System." He is now Executive Director of CLEO.

With the success and optimism of the post-war decades behind us, the nation finds itself in a new watershed period whose dimensions are still coming into focus. The challenge of fundamental economic transformation is its most visible component. Given the dynamics of the global economy, our future lies in the metaphors and realities of high technology, telecommunications, information, and specialized manufacturing. As in previous periods of economic change, we live in a turbulent environment of growing self-criticism, structural unemployment and fear of the future.

A second dimension of the new watershed is the sense that our communal, public and political lives are in decline. Given a widespread retreat into privacy, can we muster the collective will to effect an economic transformation, recreate safe and caring communities, and infuse politics with a vitality that goes beyond the single issue?

A third dimension of the new watershed is the turbulence in our personal and family lives. The old certainties have diminished for most of us, and we face new choices without the understanding and support of our mainstream institutions.

The fashion is to see the economic issues apart from the personal dimensions of the watershed. This is shortsighted. Unless we move to make all aspects of our national life whole again, it is unlikely that we will summon the commitment required for the economic tasks. A century ago, America experienced a similar watershed. It also was a turbulent period, a period of social and technological inventions. This creative spurt laid the foundation for what Walter Lippmann called the "American Century," an era of economic success, national optimism, and growing international importance.

Among the most successful inventions of the last watershed were institutions that helped the citizenry to cope with its challenges. The land grant institution,

the urban colleges, and the vocationally-oriented school sped the transition. The learning process took a giant step forward. In addition to fueling the economy with more competent manpower, the quantum leap in human learning exerted a ripple effect in creating a richer life. As we face the challenges of the new American watershed, it is well to recall the lessons of the last one. Unless we all see the tasks in larger perspective, we might well miss the opportunity that lies before us.

The love affair between Americans and their schools is at low ebb. In this century, the level of confidence in formal educational institutions has never been lower. As business and political leadership has come to identify the "human resource" issue as basic to the economic transformation, there are more pressures on schools and colleges to do better.

Leadership in Education

Yet as the importance of human learning comes into focus, there is a vacuum of leadership in education. It would seem that all the leadership can think about is retrenchment of personnel for the next two decades. The bravado claim that we will emerge "tougher and leaner" as the average age of teachers and faculty approaches sixty is not persuasive.

The argument is that the demographic and economic challenges mask the real problem, obsolescence of the educational model. Failure to remain current with the changing learning needs of the people, and especially those related to the workplace, is evident in the growth of the "shadow educational system" in business. With the exception of the community colleges, most segments of American education have forgotten the terms of their social contract negotiated a century ago: to take leadership in the continuing development of the people, communities and economy of the nation. Other institutions, most probably the American corporation itself, will move to fill the vacuum.

Given the fundamental character of the new American watershed, it is time to ask the basic questions: What is it that Americans need to learn in order to achieve our economic, communal and personal goals? How shall these necessary life learnings be acquired?

Human learning is instrumental to explicit or embedded human goals. Since these goals change, the necessary learnings also change, learnings that come from many institutions, not just school or college. There will always be a *system of human learning*, although we would conclude that the contemporary *system* is in some disarray. The newly emerging economic goals render obsolete the old system geared to a mass industrial economy. The decline of the tradition-based institutions—family, church and community—has led to the loss of the old indoctrinations that shaped our roles, our affective learnings. Because we have not yet engaged the new freedoms and choices effectively, the consequence is turbulence.

For these reasons, the nation needs to organize an update of the learning process. The "back to basics" movement in the kindergarten through twelfth grade avoids most of the fundamental issues. The trendy concerns with math/science instruction and computer awareness and literacy, important as they are, fail to deal with the problem. To get "back to basics" involves constructing a new learning paradigm.

As in all paradigm shifts there is a body of theoretical work on which to build. At least five "megatrends" leading us to the new paradigm are clear. The five megatrends leading to a strengthened national learning process are:

- **A Shift to Expanded and Explicit Goal Setting.** When the basis for an updated learning agenda is established, we will be able to answer the first basic question: What do Americans today need to learn more effectively?
- **A Shift to Expanded Intentional Learning.** Most learnings came through the unintentional, indoctrinating processes of family, church and community. But as these institutions have declined, each of us has new responsibilities of intentional learning in those areas.
- **A Shift to Increased Self-Directedness.** The expansion of personal freedom and choice requires expanded personal responsibility. The shift to self-directedness in learning becomes inevitable.
- **A Shift to Lifelong Learning.** Although the metaphor of lifelong learning has existed longer than other megatrends, it still largely fails to animate our behavior.
- **A Shift to Explicit Learning System Guidance and Development.** We must shift from the obsolete *institutional* focus to the *system* as the entity in which policy, program, and process adjustments need to be made. Parents, families, communities, churches, media, the workplace, as well as schools and colleges, must understand their roles in an effective learning system.

Updating the Learning System

These five megatrends add up to a once-in-a-century update of the American learning system. Now that they have been identified, and now that business and political leadership is pushing for a strengthened learning system, it is possible that human thought and energy can lead us into the Information Age. We now turn to the means of accelerating the shift.

The paradigm shift in the American learning system a century ago was engineered by people outside the educational establishment. Most of the adjustments in this century also came from the outside. An issue today is whether educators can be the agents of their own reform. In any event, there are seven implementing strategies to speed the paradigm shift:

- **Linking the Institutions in the Learning System.** Educators, community leaders, church folk, businessmen, media people, *et. al.*, need to come together to develop joint understandings, goals, and activities in pursuit of those goals.
- **Orienting the Citizen-Learner.** Learner orientation needs to be conducted at community, regional, state or national levels, utilizing the media and institutional communications in a synergistic way.
- **Developing Institutional Awareness.** Just as the citizen-learner needs to understand the new American watershed and the expanded intentional learnings that flow from its changing goals, so must the mainstream institutions. Schools, colleges, churches, communities, business, media, etc., need to be challenged in a bold awareness-developing campaign.
- **Sharpening the Economic, Communal and Personal Goal Setting Process.** Nearly every state and many communities are organizing more sophisticated goal setting processes. For an individual, enhanced career planning

services are beginning to emerge. But the self-help literature is still the primary support for most individuals. Communal goal setting lags far behind. Only the community education movement is moving into that vacuum.

- **Adjusting Role Definitions.** For board members and top managers, there is a need to help organize the sharper goal setting process, developing the system coalitions and managing the adjustment process in the schools, colleges, workplaces, etc. Those of us who man these institutions need to develop ways of supporting our clients and each other in assuming the expanded learning tasks.
- **Supporting Expanded Intentional Learning.** As citizen-learners come to understand the new realities and formulate new goals leading to expanded intentional learning, how do the institutions support the process? Assessment of present status, explicit goal setting, and organization of an action plan are beginnings. But in the affective areas a more experiential approach seems indicated.
- **Adjusting to and Exploiting High Technology Delivery Systems.** In addition to the direct instructional use of the new technologies, there are two other considerations worth emphasizing. First, a concerted effort by the media could develop the awareness of the new learning tasks and sensitize all of us to the substance of those tasks whether it be math-science, risk-taking, teamwork, etc. Second, basic and higher educators need to invent ways to participate in the software development process or their role in the learning process will diminish considerably.

In the past few years, the climate for strengthening the learning system has been warming. The metaphors are being proclaimed by the business and political leadership, and pilot projects are beginning to be organized. Most of the activities still concern themselves with narrow training programs. Useful as they are, they will inevitably fall short of engaging the new learning needs of society.

In conclusion, as we identify the issue of functional literacy and organize to take the 23 million less-than-literate citizens along, I believe it is essential that we see that issue in the context of the new American watershed and of the American learning system.

22

EXPECTATIONS OF THE WORKPLACE

Basic Skills In the U.S. Workforce

James F. Henry

James F. Henry is the founder and President of the Center for Public Resources, whose mission is to design new, pragmatic methods for linking business resources to public needs in ways that are consistent with market objectives. Before founding CPR, Mr. Henry was President and a Director of the Edna McConnell Clark Foundation. In 1982, he was a member of the White House Task Force on Private Sector Initiatives.

I am pleased to be a part of this program today, and I am encouraged by the willingness of leaders from business, schools, and government to to confront a national problem of major proportion and disturbing consequences. The lack of basic skills among Americans represents nothing short of a national crisis. Although time and again, I have read and re-read the figures, statistics, and reports describing the degree of basic skills deficiencies in this country, my eyes have yet to glaze over. I have yet to be unmoved by the profound implictions for our society that 13 percent of white, 56 percent of Hispanic and 44 percent of black seventeen-year-olds are functionally illiterate. These statistics imply a devastating loss of individual potential, well-being, and contribution to our national productivity and security in an increasingly competitive world.

Our educational system is facing an extraordinarily difficult challenge. Educators must not only teach and re-teach basic skills to students, but respond as well to a rapidly changing technological era at a time when additional public resources have sharply declined. Demands upon strained educational resources are growing, and the cost of the lack of basic skills is widespread. But, for decades, this far-reaching problem was rarely seriously discussed outside of education circles. Seldom was business asked to offer its perspective on the issue. That is why this conference is so timely and important.

Because as potential and actual employers of secondary school graduates, it is perhaps business which best understands the need to improve basic skills. Eighty percent of the jobs in the United States are in the private sector. Business executives concerned about their human resources have considerable interest not only in contributing to the level of public understanding of this problem, but also in helping to contribute to its solution.

How is business coping with basic skills of its employees? Where are the main problem skill areas and in what jobs? How does a lack of basic skills

impact upon corporate productivity and performance?

To answer these questions, the Center for Public Resources (CPR) designed a national survey of business, school and union leaders to examine the issue of basic skills deficiencies from these three perspectives. But before I speak of the results of the survey, I will tell you what prompted us to become involved in this issue.

CPR, a non-profit private organization, was established six years ago to design innovative, pragmatic methods for mobilizing business resources to address public needs in ways that are consistent with market objectives. The emphasis of CPR is not on random philanthropy. Rather, we are interested in matching business' market incentives directly to public problems so that solutions are founded upon the long-term sustainable interests of all parties involved. To meet this objective, CPR, over a year ago, organized a Human Resources Executive Program. This program is intended to mobilize the vice presidents of human resources directly responsible for developing employee skills and performance, and who would thus have the expertise to respond to national problems that impact upon these employees' performance.

Executives involved in the Human Resources Program represent corporations as AT&T, General Foods, RCA, Texas Instruments, Prudential Insurance Company, and the Gannett Company. From the wide range of problems facing the human resources departments of corporations, these executives identified basic skills deficiencies of youth entering the work force as the first priority of concern. Since the vice president for human resources is responsible for reducing the high costs of remedial training and improving employee productivity, the steering committee was interested in identifying the basic skills deficiences perceived by the private sector and in developing strategies for maximizing public and private resources to address the problem. With support from the Ford and Charles Stewart Mott Foundations and corporate grants from AT&T, Sun Chemical, Prudential Insurance Company, and the Gannett Company, CPR's Human Resources Executive Program formed a public and private task force to undertake this study.

In 1982, CPR published its survey, *Basic Skills in the U.S. Work Force.* The study states that the problem is of crisis proportion throughout the employment market. Not only can Johnny not read, he often can't write, add, subtract, multiply, divide, speak, listen, or solve problems well enough to get and keep a job. Most of the companies responding to the CPR survey reported significant reading, mathematics, writing, science, reasoning, and speaking/listening deficiencies in most of the job categories held by high school graduate personnel, adult and youth. Moreover, these deficiencies plague the new employee throughout his corporate life. The ability to be promoted or be retrained for a new or expanded job is seriously compromised.

The statistics are shocking. More than half of the responding companies identified writing deficiencies among their secretarial, skilled labor, managerial, supervisory, and bookkeeping personnel. The most frequently cited problems were poor grammar, spelling and punctuation.

Over half of the corporations cited deficiencies in math skills in a wide range of employees from semi-skilled labor to bookkeeping personnel. Of greatest concern was miscalculation due to poor skills in working with decimals and fractions. One Midwestern financial institution noted that between a third and

half of the high school graduates it decides to hire are unable to complete a math test involving fractions, decimals and time problems without errors. The results of these deficiencies among employees include incorrect inventories, incorrect reports of production, and improper measurement of machine or parts specifications, with the attendant impact upon product quality and corporate performance. An insurance company informed us that an employee paid a policyholder $2,200 for a dental claim of $100.00, instead of the $22.00 authorized, and did not realize the error.

Over half of the responding companies identified deficiencies in speaking and listening skills among a diverse group of employees, including secretarial, clerical, supervisory, managerial, and service personnel. Corporations cited the inability to follow verbal instructions and the inability verbally to express ideas and problems, as part of the impact of this deficiency.

Two-fifths of the responding companies found basic science technology deficiencies in their out-of-high-school work force. They noted that corporations on the cutting edge of technological change in this country have emphasized that both those currently in and those entering the work force will need more sophisticated basic science skills, both for entry-level positions as well as to qualify for promotions.

Interestingly, in contrast to the popular belief that reading skills are the foremost problem among high school students, companies in our survey much more often found serious deficiencies in mathematics, speaking, listening and problem-solving skills. Union respondees, albeit with less job specificity, were largely in agreement with corporate executives.

Seventy-five percent of the companies reported that these deficiencies inhibit the promotion of entry-level high school personnel, leading to employee frustration, low productivity, high turnover, and the loss of millions of dollars. In addition, seventy-five percent of the companies have initiated a remedial program to teach basic skills that should have been acquired in the tenth grade.

The cost of these programs is growing. One company reported that ten years ago it hired one training director at $15,000; today, it has 6 full-time, 20 part-time and several consultant remedial education trainers, with an estimated budget of $250,000.

In surprising contrast, seventy percent of the school systems responding to the survey assessed the majority of their employment-bound students as adequately prepared in these basic academic skills. For example, business most consistently found speaking and listening skills lacking in their high school graduate new employees. Yet, over ninety percent of the respondent school systems felt that their graduate students had adequate-to-superior speaking and listening skills. It should also be noted that business and school respondees also differed as to the relative priority for vocational education in the context of basic skills problems. While school respondees often cited vocational skills as the most important factor in youth employability, the business view was that if schools provided adequately-educated youth, business would provide, indeed overwhelmingly does provide, technical training. What business decidedly indicated it did not want to do, but is in fact doing, is to educate its employees in ninth and tenth grade skills.

The problem, we feel, is not one of poor teaching in the schools, but rather what is being taught, due to the communication gap between business and schools. On the one hand, secondary school curriculum has often deteriorated, with greater numbers of students taking drivers' ed rather than algebra. On the other hand, the "take/place/put/lift" jobs in industry are fast disappearing. Thus, in a time of declining quality in curriculum, the changing world of work demands that employees have basic math, science, listening and reasoning skills. This fundamental role of and need for basic skills apparently has not been well communicated to educators.

However, the good news is that the vast majority, ninety percent of both business and school respondees to the CPR survey, recognized the need and opportunity for joining their individual resources to overcome basic education deficiencies in the public school systems. The bad news is that the track record for such cooperation on these basic skills problems is not that impressive. While there are many examples of public-private education cooperation in career counseling or vocational areas, there are relatively few precedents for preventive cooperation to address the basic problem directly.

Our survey found that the corporate approach to the problem traditionally has been curative, the provision of remedial programs for employees within the corporation itself. But this approach is an expensive luxury that corporations can no longer maintain. The magnitude of the problem compels both business leaders and educators to cost-effectively apply their resources to collaborative partnership efforts. Where CPR has identified successful partnership cooperation, it has been based on these factors:

- It has been locally generated;
- It has required some political leadership;
- It has assumed from the outset that cooperation had to be more than financial;
- It has had to rest on common objectives and attitudes if it was to be sustainable in the long term;
- It has had to involve a school system administrator who viewed the educational system as a business counterpart to the private sector, willing to be held accountable for its product;
- It has required a business or business community partner with a significant labor investment in the local public schools.

Both business and education must recognize that sustained effort, creativity and expertise, not short-term financing, are the only effective and durable solutions to the basic skills dilemma.

We cannot buy our way out of the national education crisis we face. Required are sustainable partnerships based on the self-interest of business, educators, and labor, partnerships that will withstand the political winds and vagaries of the times and share a concern for the human resources of all our economic sectors.

EXPECTATIONS OF THE WORKPLACE

Basic Skills In Financial Services

Donald C. Mann

Donald C. Mann is Vice President, Public Affairs, of The Prudential Insurance Company of America. He directs all community affairs activities in which Prudential is involved. Mr. Mann is chairman of the Newark Private Industry Council, Inc. He is a former Director of the Newark Chamber of Commerce, President of Newark Rehabilitation, Inc., and he serves on the boards of the Greater Newark Urban Coalition, and the James Street Development Corporation.

You don't have to be a student of history to know that one of the world's longest running debates concerns the aims and scope of education. It's almost as old as the war between man and woman; and like that war, there doesn't seem to be any armistice in sight. It wasn't too many centuries ago that Oxford undergraduates were required to wear swords—and not for ROTC, either. The fight wasn't new even then. Look what happened to Socrates.

Today the struggle is not physical. But it seems to be as strident as it ever was. Without reiterating all the philosophical positions of each of the combatants, I would like to make a couple of observations.

- Educators claim that they are in the business of preparing students for life.
- Business people say the schools should be preparing the kids to make a living.

In all fairness, both are right, but neither is exclusively so. There have been times when educators were suspected of being impractical. And, there may have been an occasion or two when businessmen have not been as foresighted as they could have been.

The fact remains, however, that the schools are important to us in the philosophical sense in that they are an arm of government—the first line of democracy.

They are also important to us in a pragmatic sense because they create our employee force. And, in their totality, they create our markets.

For better or for worse, the school system is as linked to our destiny as Moby Dick was to Captain Ahab's. We cannot escape.

Urban Schools

One other fact is that, in the urban centers, the education system is simply not doing its job because of any of a hundred or a thousand negative influences. The fact remains that the basic undeniable mission of the school system—rural, small town, or urban center—is to deliver graduates who have some basic proficiency in reading, writing, and arithmetic. And, in the urban centers, they are not doing it very well—by their own standards, not just ours.

There has been a great change in the educational field over the past 30 to 50 years. Educators have been staggered by the weight of the postwar baby boom and rocked by the explosion of urban migrations from the south and the islands.

They have been stunned by the information explosion. They have been cowed by the groups once docile but now demanding power. They have been shocked by Women's Lib, and scandalized by anti-establishment, anti-government and anti-institutional demonstrations. In short, they have been undergoing the same kind of culture shock that the rest of us have. Further, they have been deluged by activists who want the schools to put more emphasis on their "thing." For example:

- To deal with the problems of competing in a world market, we need to produce multi, if not polylingual, groups of adults. Therefore, foreign languages should be required.
- The sexual revolution has relaxed the standards of morality. Therefore, we need sex education, or birth control. And, for those who flunk it: parent education.
- Young people spend a lot of money; they are consumers. We need consumer education.
- The state of our nation's economic I.Q. is scandalously low. The people need economic education, and it has to start early, kindergarten, if not sooner.
- Admiral Rickover does not like what he sees coming out of Annapolis, the NROTCs and the officer candidate schools. We need heavier emphasis on science and mathematics. And it has to start early.
- The marketplace has changed, and the work bench with it. The new battle cry is "high tech."
- Then there's driver training, culture and the arts, health education . . . not to mention the new emphasis on computers.

But before I write off these positions too lightly, I remind you that these nostrums are designed in good faith to help the schools produce a new generation of better prepared citizens.

The depressing fact, however, is not that the urban school systems can't handle the competing pressures. It's that they are having trouble producing literate graduates at all. And, this is what we are really concentrating on today: How the public schools, particularly in our urban areas, are failing to provide people who can do the jobs that are offered.

All you have to do is talk to your employment managers. They sound the same, from company to company, from urban center to urban center. So many take the employment tests. So few are hired. As one young woman once told me after a day of interviewing local high school graduates: "Before you find Prince

Charming, you have to kiss a lot of frogs." (I think she was talking about job applicants.)

Employment at the Prudential

Let's take a look at the employment picture in our business, what it looks like today, and how it will look tomorrow.

In the late 1940s, Prudential had more than 12,000 employees in its home office. Most were women between the ages of 18 and 28, and they would work only a few years. Before leaving for marriage, most employees worked cheek and jowl and desk to desk in the massive record-keeping operation that characterized the life insurance business. The work was divided by subtle shadings of responsibility—examiners, reviewers, consultants each checking each other's work. It must have been awful.

In those days, we got our employees exclusively from high schools, and the heaviest skills needed were reading, writing, and arithmetic.

Over the years, of course, much changed. In fact, the manual systems that fueled our business could not support the business we did. One of our actuaries predicted in the early 1940s that if business continued to grow, Prudential would have to hire every female high school graduate in New Jersey each year just to carry out the work. (Sexism was rife in those days, I might add.)

In Prudential's case, we solved the shortage problem first by decentralizing and establishing regional home offices throughout the United States and Canada. The computers were an afterthought, and it might be interesting to see how they have changed the work profile.

In the old days, if you drew a diagram of Prudential's staff, its shape would be a triangle. The width of the base line represented where most of the work was being done. The largest number of employees were at the lowest job levels—the mail trippers, typists and entry-level clerks.

But as the computer began doing more and more of the work, that shape began to change. By 1975, in clerical job levels 2 to 12 (the computers had already eliminated the level 1 position), 60 percent were in the bottom five levels. Last year we found that this had changed: more than 50 percent were in the top six levels.

This appears to be a trend. The triangle began to take a pentagonal, or onion, shape as most of the work was transferred to the computers and the people who tend them.

This suggests that our industry needs people with better analytical skills. However, the nature of our business is that the people we want to hire are still going to have to come in with basic reading, writing and arithmetical skills. They have time to learn the analytical skills as time goes on.

So what about the future? It appears that the computer will insinuate itself into the fiber of the company, and the growth will not be arithmetical but exponential. For instance, at Prudential many divisions are beginning to install mini-computers and word processors to take care of the work. This suggests that computer skills will eventually be absorbed into the dimensions of more and more jobs, rather than standing alone as a specialty. Remember the triangle that became an onion? Now, the onion begins to assume the shape of a diamond.

But what of the skills that will be needed from the public schools? Workers

will not only have to be able to read, but read better. The directions for these computers are not in comic book English—it's tough reading—particularly if it is translated from the Japanese.

There are other changes in our industry, too. Once upon a time, Prudential sold life and health insurance and annuities, both group and individual. We also invested in securities—stocks, bonds, private placement loans, mortgages, and so forth. We now have more than 40 subsidiaries, including property and casualty insurance companies, a brokerage house and, as of this month, a bank. Our Prudential-Bache subsidiary has more than 40 subsidiaries of its own.

It's clear that we will be needing people who can read and write, who can do needed arithmetic and analysis. And we will need fewer of them, so we're going to concentrate on getting the best.

Business and Schools

This brings me to an important question, one for which I do not have an answer: How does the business community influence the schools? I said that the public schools are an intrinsic part of the democratic system. The problem is that the corporations that could be of most help don't have access to the school systems through the democratic process. In many cities, the most influential business people don't reside in the cities where they work, so their influence on the political aspect of the schools is weakened. This is particularly true in cities where the political leadership does not trust the business leadership.

The second question is: How does the community get accountability from its school system? If the schools aren't doing their job, how do we do it, given the complexity of the school bureaucracies, teachers' unions, tenure systems and the like?

In New Jersey we have a constitutional provision calling for thorough and efficient education and that isn't even solving the problem in our state's urban centers.

So, has it come to the point where we have to think the unthinkable? Is it time simply to forget about the public schools in the major cities in terms of our hiring goals? Should we support a system of private, parochial and alternative schools? While I have not necessarily reached that position myself, I personally begin to find it less unthinkable.

But before anyone writes off the public schools, I'd like to share some disquieting thoughts from the American Productivity Center. In its brief entitled, "Education—A Long Term Investment in Human Capital," the writers draw parallels between the rise in productivity in Japan and its educational system. The implication of an odius comparison with the United States is unmistakable.

For example, 95 percent in Japan graduate from high school, compared with 78 percent in the United States. Japan's schools are open five and one-half days a week—and a lot more weeks than our schools. The result is that the graduate of a Japanese high school has the equivalent of four years more of school than the graduate of an American school. Math and science scores are higher in Japan than in any other country. And, evidence is strong that general education achievement is widespread—not restricted to the achievement of an elite

group. The reason for this is simple, according to Professor Edwin Reischauer of Harvard, a former Ambassador to Japan. Says he: "Nothing, in fact, is more central to Japanese society than is its educational system."

William Batten, Chairman of the New York Stock Exchange and Director of the American Productivity Center, in the same briefing, makes a case for a strong business presence in the schools. He cites figures showing that one-fifth of the high school graduates can't correct a mistaken bill, properly write a check, or do the most simple basic clerical computation. He links this problem to the scandalous drop in American productivity. Mr. Batten roots for programs like the "Adopt-a-School" tutoring programs that use volunteers to go into schools. Prudential has several of these programs, and they work. He also calls for work-study programs by the business community. And, it is possible that bringing high school students into work part-time could give businesses time to work with the youngsters to correct some of their educational deficiencies.

It also could be a great benefit to the schools if business people could help schools develop curricula, although we have already talked about the mutual distrust between the business people and the educational professionals. The fact is, though, that nothing will be accomplished to upgrade the level of urban education until people, particularly the people of the cities, demand it. Right now, in most large cities, the schools are a part of the political process, and the disruption in the schools reflects the restlessness of social change. However, when citizens and parents really decide they want their children to succeed, they will probably do something to make it happen.

There is a way to make that happen, at least some people believe there is. Michael J. McManus, a publicist who designed a successful town meeting series in the New York metropolitan area, has a list of things that might raise citizens' consciousness. Here are some of them:

- Get local people to measure the quality of their local schools using a sophisticated instrument like the National Assessment of Educational Progress;
- Try higher standards for graduation;
- Develop job placement programs especially for the least likely to succeed;
- Train school principals to help teachers do a better job. This planned intervention, McManus says, is how New York City children have moved above national norms in math and verbal skills;
- Involve parents, particularly in making demands that parents can understand: requiring that homework be done, turning off the TV, monitoring classrooms with a stopwatch to see how much time is given to instruction. Again, this has to do with accountability.

A group of Prudential Public Affairs Department employees has also been examining the problem of urban education, and they have some suggestions as well. For example:

- Corporations, through the sponsorship of public service advertising, can convey the importance of citizen volunteer involvement in the schools. Ads can also reinforce to parents the need for quality education and the need for active parental interest.
- Charitable foundation grants from major corporations can also be of value in promoting programs that concentrate on basic skills.

I believe that things are beginning to move in the right direction. The fact that we are having this conference today is evidence. Top school officials all over the nation are issuing calls to arms. In New Jersey, the new State Education Commissioner, Dr. Saul Cooperman, has convened a task force comprised of leaders from all walks of life to tackle the problem of urban education. It's a working group, and we are already responding with proposals to increase the effectiveness of inner city schools.

There is an awful lot riding on the success of America's public schools: productivity in the immediate and long range future, jobs, and perhaps the future of the American system.

I believe we should remember that the American public school has been one of the wonders of the modern world. It has created and maintained the most productive middle class society and the most successful economic entity that the world has ever known. It has been the genius of the American democracy.

My own feeling is that the public schools have been successful in most American communities. I also believe that they will resume their proper role again in the urban centers. It will take a lot of time and effort, and we may have to work around them for a few years. But it will be worth the effort, and the wait.

DEFINING ADULT FUNCTIONAL LITERACY

Paul Delker

Paul Delker is Director of the Division of Adult Education in the U.S. Department of Education and has been involved with the Federal Adult Basic Education Program since its beginnings in 1966. He headed the U.S. delegation to a UNESCO meeting that drafted Recommendations on Adult Education adopted by the General Assembly in 1976. Earlier, he managed adult education efforts in training Peace Corps and VISTA volunteers.

The older definition of literacy deals with the basic ability to read and write. In fact, the United States Census defines as literate anyone who has completed six years of school, or who reports being able to read and write a simple message. By this definition in 1880, 20 percent of our population was illiterate. By 1970, only one percent was illiterate.

However, we must consider literacy not only on the basis of a fixed inventory of skills—reading and writing, but we must also concern ourselves with the needs and demands society places on individuals. Today's post-industrial society is based on rapid technological change and instantaneous communication, necessitating continued learning for survival, effectiveness and fulfillment. Thus, we define literacy by stressing its functional aspects—possession of the essential knowledge and skills to enable an individual to function well in his environment—the home, the community, the workplace.

You may be familiar with the Adult Peformance Level study (widely known as the APL study), funded by the then U.S. Office of Education and reported in 1975. Its objectives were to describe adult functional literacy in pragmatic, behavioral terms and to develop devices for the assessment of literacy which would be useful on a variety of operational levels. To date, the APL study represents the most systematic and extensive effort to measure functional literacy.

Findings of the National Assessment of Educational Progress study and some Harris surveys in the 1970s support the general conclusions and figures of the APL study. The Department of Education uses the data from this study as the most reliable measure of the real problem. APL findings support a general theory of adult functional literacy based on two principles:

1. Functional literacy is a construct which is meaningful only in a specific societal context. A corollary of this thesis is that, just as functional literarcy is

culture-bound, it is perhaps even more closely bound to the technological state of a particular society. The person who is functionally literate in one society may be illiterate in another. Furthermore, as technology changes, the requirements for competency, or literacy, change.

2. Functional literacy is at least two-dimensional. It does not consist simply of a single skill or even a set of skills but is best described as the application of a set of skills to a set of general knowledge areas which result from the requirements imposed upon members of a society. APL research indicated that functional literacy consists of a series of skills—communications (reading, writing, speaking, and listening) computation, problem solving, and interpersonal relations—applied to five general knowledge areas: occupationally related knowledge, consumer economics, community resources, government and law, and health. Using this two-dimensional concept, the APL project defined 65 requirements for functional literacy.

The study went on to define literacy as a series of educational skills applied to everyday life requirements. The APL project developed a general index of literacy that classified adults into one of three categories:
APL 1—those with unsatisfactory mastery of the requirements for functional literacy—the functionally illiterate;
APL 2—those who are functional, but not proficient;
APL 3—those who are proficient.

Using the 1975 APL yardstick, an estimated 23 million adults function with such difficulty as to be functionally illiterate. An additional 40 million adults can function but not proficiently (APL Level 2). This totals 63 million American who are not proficient in meeting the educational requirements of everyday adult life. In other words, taking the U.S. population as a whole, one out five adults lacks the skills and knowledge needed to function in society. On the other hand, nearly one-half the population was predicted to be performing at a high level of competence. The remaining segment of the population was performing at a level that is associated with marginal success.

Within this context, it is timely to cite the recent report of the National Commission on Excellence in Education, which is appropriately titled, "A Nation At Risk." A grim statistic: 13 percent of all 17-year-olds were found to be functionally illiterate. That percentage equals 535,600 17-year-olds based on 1980 Census data. Among minority youth, functional illiteracy now approaches 40 percent.

Other findings from the APL study will help us focus more clearly on the problem:

- For level of education, the percentage of functional illiterates rises steadily from about two percent for college graduates to about 85 percent for adults with less than four years of formal schooling;
- For family income, the percentage of functionally illiterate persons rises from about eight percent for incomes of $15,000 or greater to 40 percent for those with a poverty income or below;
- For occupation of chief wage earner, the percentage of functional illiterates rises from about 11 percent for the professional and managerial

category to approximately 29 percent for the semi-skilled and 30 percent for the unskilled;

- It appears that males and females perform about the same;
- There was a negative relationship between age and performance. Although the youngest group (18-29) did not have the lowest level of functionally illiterate adults, the general trend was that the older the individual, the more likely that he/she is functionally illiterate. More than 35 percent of adults 60-65 were estimated to be functionally illiterate, while only 11 percent of adults 30-39, and 16 percent of adults 18-29 were found to be so;
- The demographic comparison of regions shows that while the Northeast, North Central and Western parts of the U.S. have about the same percentage of functional illiterates, the South had a higher rate of functional illiterates and a lower level of proficient adults. While all other regions were estimated to have about 16 percent functionally illiterate adults, in the South there were approximately 25 percent in this category. I hasten to add, however, that indicators that correlate highly with the APL measures indicate that the South has improved significantly in the almost ten years since the APL study;
- There were great differences between whites and all minority groups. While less than 20 percent of the whites were estimated to be functionally incompetent, more than 40 percent of the black and more than 50 percent of Spanish-surnamed groups were estimated to be so;
- Rural areas had the greatest estimated percentage of functional illiterates (27 percent) with cities over one million and suburbs slightly less (about 21 percent), and cities under one million and urban areas having the smallest percentage of functional illiterates;
- The employed showed a smaller percentage of APL 1's (15 percent) than housewives (27 percent), who in turn showed a smaller percentage than the unemployed (36 percent).

While the last findings say those in the workplace are best off, it can mask a significant and threatening point, namely that 15 percent of those in the work force are functionally illiterate. Applied to today's work force, this means that 15 million employed or employment-seeking adults are functionally illiterate.

Since the APL study was made, the U.S. adult population has increased substantially. If the APL sample is still representative, 27 million people are functionally illiterate today (APL 1) and an additional 47 million do not function proficiently (APL 2), for a total of 74 million Americans who function at a marginal level or below. That total—74 million—is an increase of nine million over the 1975 estimate.

We could call these adults our pool of Americans in need of basic education. In addition, each year we add an estimated 2.3 million, that is, one million dropouts and non-functional graduates; 400,000 legal immigrants; 100,000 refugees; and 800,000 illegal entrants. And, coming out of this pool are approximately 2.3 million adults benefiting from the federally assisted adult education program and other efforts.

A note of caution: these figures, the most reliable available in defining the functional needs of adults in the U.S., do not lend themselves to comparing adult illiteracy in the U.S. with that of any other country. No other country has

used these measures or their equivalent in assessing adult illiteracy. In all cases with which I am familiar, measures used by other countries are much less complex than those used in the APL study.

In speaking of the needs of as many as 27 million adults, it is important to recognize that these are individuals with different backgrounds, life styles and social situations. This is not an amorphous mass, which if immersed in an appropriate educational dip would cease to have problems. In differentiating these millions of people, the work of Dr. George Eyster of the Appalachian Adult Education Center, extended by Hunter and Harman in *Adult Illiteracy in the United States*, is the most useful I have found. Their work describes four groups of functionally illiterate adults in relation to some motivational and situational variables:

Group 1—"Secure" and "Self-directed" persons who respond well to group activities as well as to individualized instruction and are open to recruitment through the media. They value education and want it. The principal determinant in their receiving education is access to it.

Group 2—Consists of persons less economically and personally secure. They have suffered some of the consequences of undereducation and underemployment and yet are eager learners capable of achieving specific goals they set for themselves to improve their daily life. The major difficulty in extending services to these persons is time. Support services such as release time, transportation, or child-care may make all the difference in this group's being able to respond to learning opportunities.

Group 3—These Persons have been only sporadically employed in low paying, short-term jobs. They value education but need individualized recruitment contacts and one-to-one instruction. They frequently are faced with other more fundamental needs which must be met before they are able to devote their attention to education. Health problems, poverty and poor housing frequently prevent them from seeking education.

Group 4—"The stationary poor." This group, too, may need extensive support services before being able to be reached by any educational program. In addition, they may *not* value education or see it as being relevant to improving their lives.

These groups are based on individual characteristics. Members of different groups are often found in the same family. Individuals also fluctuate between groups at different times in their lives as circumstances change.

In closing, allow me to depart slightly from the definitional issue and suggest two solutions. The most obvious one has been cited, that of increasing educational services for those who are functionally illiterate. These efforts will, I predict, expand. The other solution, while just as important, I hold less hope for. I refer to a nationwide effort by every professional, administrator, manager, journalist, teacher, and every producer of verbiage and print to simplify communications. Clearly, adult illiteracy is exacerbated by words like "exacerbated." We can eliminate some communications problems, I submit, if we express our thoughts as simply as possible. So, I will just stop with a question: "When's the last time you read and understood your life insurance policy?"

SOME RESPONSES TO THE LITERACY PROBLEM

Business Center for Corporate Public Involvement

Stanley G. Karson

Stanley G. Karson is Director of the Center for Corporate Public Involvement, which is supported by the American Council of Life Insurance and the Health Insurance Association of America. The Center provides information and guidance to 600 insurance companies on corporate public involvement programs and issues. Mr. Karson is a contributing author of two books, "The Other Side of Profit" (1975) and "Investing in America" (1982).

From some of the comments I heard at lunch, it occurred to me that there was an ingredient missing from the discussion: the role of the private sector. We have been assuming—this has been a "given" here—that the private sector is going to be involved. But, is that truly the case?

If it isn't to be the case, then we're repeating what we usually find in conferences on these important subjects, that we're speaking to the believers, to the converted. We don't want this to be the case. So, I think we should examine briefly the extent of the involvement and why corporations and businesses should consider being involved in this activity, so far removed from their traditional bottom line, their perceived interests. As Congressman Simon asked earlier, how many are willing to overlook short-term benefits and emphasize long-range interests?

Corporate Public Involvement

How can we get them to do that? We in the life and health insurance business have been involved in this field for about 12 years. And I'll let you in on a secret. Not all life and health insurance companies believe in corporate social responsibility or corporate public involvement, though many do, I think.

But there are not enough of these. How do we get them involved? This is a concern of the company people here, obviously. But it ought to be of equal concern to the professionals in education here, and to those from the public sector.

You wouldn't be here today if the rules of the game hadn't changed in the past couple of years, would you? How many of you would have been here two or three years ago, trying to involve the private sector in the attack on illiteracy? Certainly five or ten years ago your emphasis, I think, was not on trying to link the business community into this effort, to make them a major part of the

solution, to use their resources.

So, how do we encourage corporate public involvement? I am so tired of being asked what I do. I say, "corporate social responsibility" or "corporate public involvement," and the eyes of the other person glaze over. Until corporate public involvement becomes, at least, a term that you in the non-profit and public sectors and in the management levels of the private sector accept as an important aspect of corporate life, we will continue to have problems. So, let's start using those phrases. Emphasize to corporations and their executives that it is in their long-range interest to be concerned about the quality of their work force, now and in the years ahead, to be concerned about the joblessness, the housing and health conditions in their communities—so that they can continue to do business in those communities.

These are *bottom-line* considerations. Whatever the social problems in which you think the private sector should be involved, one must address the private sector in terms of its self-interest. The self-interest of business—we feel strongly at the Center for Corporate Public Involvement of the life and health insurance business—is tied inextricably to community health and welfare. When you've agreed on that, you don't say we're involved because we're Lady or Lord Bountiful; we're involved because we want to protect the future of our business. So much for the rationale for corporate public involvement.

At the landmark Oak Brook Conference in 1981, more than 100 life insurance company chief executives examined our reputation as pacesetter in the field of corporate public involvement. With a 15-year tradition of corporate public involvement efforts, the chief executives reaffirmed their commitment to these activities and vowed to continue, with a new focus on the problems of the 80's.

But how would they do so? What role could they urge upon insurance companies to achieve corporate public involvement goals? How best could the business use its experience to act as a catalyst for similar developments in the private sector and in developing new partnerships among the private, public and non-profit sectors?

The Hard-to-Employ Initiative

One of the most significant results of the Oak Brook Conference was the decision relating to the hard-to-employ. In a letter to President Reagan summarizing the conclusions of Oak Brook, then Chairman of the Committee for Corporate Public Involvement, Walter B. Gerken, explained that:

> Even though there are a number of pressing national issues that demand attention and solution—such as crime and violence, urban decay, health care costs and housing among them—the critical problem of structural unemployment, particularly among minority youth, reaches out to us for priority attention. We expect our industry and our companies to focus our efforts on this urgent issue.

As with any new effort, it is almost as important to know what is not involved as what is anticipated. It was not expected that dramatic results would be demonstrated in the short term. The life and health insurance business will not be able to hire by itself any substantial numbers of the hard-to-employ. And, this business is not stepping into the government role of maintaining training and employment programs for millions of Americans.

With this initiative we hope to provide impetus and guidance to companies in every community so that they may understand the diverse symptoms of the problem and thus help their communities in using their own resources.

The hard-to-employ effort encompasses many of the kinds of programs in which insurance companies have long been involved. We are talking about working with schools and school systems to assure that young people in inner city areas, as well as in suburbs and small towns, have an education that prepares them for present and future jobs.

We are talking about company support of effective job training programs that will assist those who have been left out of, or have dropped out from, programs to prepare for productive employment.

We are talking about company involvement in drug abuse programs and about company support of daycare facilities. The critical element of this insurance industry initiative is precisely its inclusiveness of issues, its diversity of approaches.

America's illiteracy crisis represents a humiliating barrier to the employment of many hard-to-employ persons. As a group, the hard-to-employ often have inadequate basic reading, writing and computational skills.

The life and health insurance industry's hard-to-employ program recognizes the vital role that education plays in employability. It also recognizes the stake of insurance companies in helping assure that schools are run effectively.

A major focus of the initiative calls for companies to improve opportunities for the hard-to-employ to gain the basic skills required of them in private sector jobs, and to help businesses in the community to provide compensatory and in-service training and counseling to help upgrade basic job skills of the hard-to-employ.

Working Together

But companies cannot do it alone. It must be a cooperative community effort. And with the retrenchment in federal financing for employment and training, communities must use public and private dollars and volunteer talent.

This concern can be translated into steps to raise the quality of education and prevent the movement of young people into the already large pool of the unemployed, as well as to make up for educational deficiencies.

Benefits to be gained by life and health companies through the educational aspect of the hard-to-employ initiative are clear:

- Companies could hire more young people;
- Insurance operations require more complex skills as they rely more on the microcomputer;
- Customers need to be met by literate and articulate representatives; and
- Effective schools are necessary for a healthy and stable society.

School boards, administrators and faculties are beginning to show more interest in working with business leaders. In some communities, effective joint planning and problem solving are well underway. It's not always easy to get them involved, but it's important that you understand—whether you are in the public sector, private, or the non-profit sector—that you have a role to play in motivating business to become involved. Often it can be done just by getting some business to be a "convener," to gather together those elements in the

community that usually don't talk to each other even if they work on the same problem. I know Prudential has done this so well in Newark. You get a local business leader—the most committed one and probably the busiest one—to agree to convene a group of community leaders who really want to do something about the problem of illiteracy or education, or whatever it is in your community, and you start the ball rolling. We've seen that process operate in many communities. An increasing number of insurance companies are "adopting" schools.

Lamar Life Insurance Company in Jackson, Mississippi, has adopted Siwell Road Junior High School. "It is a two-way association," says Jack P. Dean, president of the company. "Lamar Life is able to help the schools by providing some materials and services that would not be available to the students and the staff, and they provide us with the benefits of talents we do not have."

Working through Public Education Nashville Citizens Involved in Leadership (Project PENCIL), National Life and Accident Insurance Company has adopted Stratford Comprehensive High School in Nashville, Tennessee. Under the program, 30 area businesses have adopted schools.

"We at National Life are proud to be a part of the Adopt-a-School Program whose purpose is to strengthen public education through the use of community resources and to encourage community interest in our schools," said C. A. Craig II, company chairman.

According to Brent Poulton, executive director of Project PENCIL, the organization was formed to coordinate efforts by Nashville business education and civic organizations in their support of city schools.

And, he added, "It is predicated on the assumption that a strong public school system is an essential element to a healthy future in our community, and that a strong public school system requires broad-based support and involvement from the community, including the private sector."

Under a program sponsored by the Metropolitan Milwaukee Association of Commerce, Northwestern Mutual Insurance Company has teamed with the A. O. Smith Corporation to adopt the city's Washington High School. Margaret Bonvicini, Northwestern Mutual's liaison for the program, said, "Our primary goal is to establish a relationship with the school that will create a greater understanding of our industry, assist students in career planning, acquiring job skills and becoming acquainted with the responsibilities of the working world." She adds, "We and the people at A. O. Smith feel that the partnership will be particularly beneficial to Washington High since the two companies are so different, one being largely industrial and the other providing financial services."

These are just a sampling of activities which demonstrate that the common goals of business and education can form the basis for effective partnerships.

A primary objective of the hard-to-employ effort is company participation. Funding is, of course, an ever-present need of community and social service agencies these days, but much can be done with other resources: corporate leadership, technical assistance and volunteer efforts from employees.

Each of these ingredients means *involvement*, and that is what all the current buzz words—public/private partnerships, private sector initiatives and voluntarism—add up to.

Even if the industry's special effort for the hard-to-employ does not result in a substantial number finding permanent employment, corporate public involvement with this urgent social issue can exert one extremely important effect. It can demonstrate to millions of young Americans that they are not ignored or forgotten.

It is a message to them that not only do they have a recognized stake in the system, but that the truest believers in the system—corporations and their officers—are trying to bring them into the mainstream of economic life.

41

SOME RESPONSES TO THE LITERACY PROBLEM

Business
The Travelers Insurance Company

Robert W. Feagles

As Senior Vice President of The Travelers Insurance Company, Robert W. Feagles is responsible for the company's personnel-administration and medical departments. He also is Chairman and Chief Executive Officer of The Travelers Asset Management Corporation. Mr. Feagles serves on the boards of the American Graduate School of International Management and on the Council of the International Executive Service Corps. He is a member of the Personnel Round Table and the Labor Management Committee of the Business Roundtable.

The issue of functional illiteracy lies coiled at the center of our unemployment problem, and it threatens this country's ultimate ability to succeed in the world market.

It poses a vital question: How do we guide the tremendous energy of this nation's work force to the unfulfilled needs in business and industry for skilled, qualified workers?

I think it helps to admit that we've made a few false starts. When the Reagan Administration buried CETA last fall, the funeral brought more relief than grief. But in our relief, we must remember to salvage from the past the good that was done. The Job Training Partnership Act (JTPA)—let's hope it won't become "son of CETA"—I believe, has the elements of success. And at The Travelers, we're working to see that it does succeed.

I want to describe the programs The Travelers has been involved with in targeting functional illiteracy. To keep perspective as we go along, I've broken the programs down to three groups.

1. The chronic unemployed. These are people, many of them heads of households, who haven't even the requisite skills to climb that first step on the job ladder.

2. The high-school-age youth. Many are students about to enter the workforce. Unfortunately, many are dropouts, already apprenticed to chronic unemployment.

3. The high-potential high school student who, lacking the role model or guidance to encourage career aspirations, will have none and will instead become a tragic waste of human resources.

MOST/BEST for the Chronic Unemployed

I'd like to talk first about the chronic unemployed, not only because their problems are the most immediate, but because I've worked first-hand with two successful programs for this group.

My first involvement began when I was with a major New York bank. In four years, starting in 1964, we conducted a program that took 2,000 people off the welfare rolls and put them on the payroll of that bank. Our attrition rate was no greater than for ordinary, off-the-street hires. And, many of those people used the organization's tuition refund program to get their high school equivalency and in some cases to start college-level work, thus qualifying for promotion to better jobs.

At The Travelers, we are in the sixteenth year of a program of similar design that has also produced impressive results—MOST/BEST means "Modern Office Skills Training and Business English for Spanish-speaking Trainees." As of December 1982, 791 persons had participated in MOST/BEST. Eighty-three percent completed the program, and of those, 94 percent became permanent, full-time employees of The Travelers. Those 616 persons started the program as unemployable in our work environment. Although financially disadvantaged, they were motivated to succeed.

Candidates for MOST/BEST are referred to us by community agencies. They are interviewed by our employment counselors and by MOST/BEST instructors. If selected, they enter an intensive 18-week training program with two phases:

- They receive eight weeks of full-time classroom training. They study math and English. They acquire a battery of basic office skills—typing, filing, basic accounting, number skills, word processing and cathode ray tube operation. And, of course, they get a heavy dose of human relations and interpersonal skills.
- In the second phase, they spend ten weeks in work-study. They spend their mornings in the classrooms, the afternoons in the departments, training in the jobs they'll have when they finish the program.

This work-study approach is something new for us. It's our answer to the increasing complexity of entry-level jobs. Just one example of this problem: at The Travelers, we're phasing out the electric typewriter. Our new standard machine performs electronic functions and has a memory. Soon, typing skills alone won't open any doors. Word processing is the key; and word processing, like many of the skills we need today, demands more time and effort to master than the entry-level skills required only one or two years ago.

Work-study lets our MOST/BEST people apply classroom training to the actual work situation. They build the skills they'll need, and with those skills comes the confidence that they can handle a full-time job.

Over the years, we've identified the elements that make MOST/BEST successful:

- The employee/employer relationship starts immediately. Trainees are Travelers employees—the condition is that they successfully pass through the training program to the jobs that await graduates;
- The physical environment simulates the real work situation, down to the furniture and equipment, the hours of work, even the color of the paint on the walls.

- Everything taught is shown to the trainees as being directly relevant to the job for which they are preparing. English, mathematics, office skills; for each and all, the relationship is made clear.
- To the extent possible, participants must continue to receive welfare and assistance payments. Trainees, particularly those with families, cannot be expected to sacrifice security for a training opportunity. This is an area where federal and local governments must establish welfare provisions that support training programs and motivate people.
- Finally, participants have access to individual counseling from qualified staff. It took us a while to appreciate the importance of this aspect and to understand that mere survival for many is tremendously demanding of time and energy. This is particularly true of heads of households. They must cope with a variety of problems—medical, welfare, housing, day care for children, police, the public school system, etc. A parent must be satisfied that these matters are dealt with before he can devote the time and the energy required by full-time work. Now, counseling means just that—it's teaching the individual how to solve problems of where to go for medical help, whom to talk with about welfare, how to find housing and day care, whom to speak to in the police department. Once these problems are solved, we find the people to be as punctual and responsible as others in the workforce.

In the years I've been involved with these programs, successful training programs included these five critical factors: job assurance, world of work training environment, obvious relevance of what is taught, welfare consideration, counseling.

Programs for High School Youth

When it comes to our second target group—students about to enter the labor force—The Travelers has been involved in a number of experimental approaches with one common factor: They were collaborative efforts involving the schools, business, and the community.

Workplaces, an experimental program launched in Hartford in the mid-70s, has earned mixed reviews. In its current form, Workplaces combines academic studies with vocational training in one of six career areas, or "centers." Students spend half of each day in a company or training facility developing vocational skills. They spend the other half-day studying in the academic center.

It is this academic center that separates this program from the many work-study approaches we've all seen. The academic training, structured to support the career training, is a specifically directed curriculum. But in addition to their high school diplomas, students receive Workplaces certificates indicating the hours of specialized training they've completed.

This program does not set out to produce job-ready graduates. It only introduces them to the skills they'll need to enter one of the six careers. It improves their chances for employment, it helps them focus their career choices, and it prepares them for industry training programs or technical schools.

Our involvement at The Travelers has been primarily on two levels. We have provided guidance to the insurance and financial career center through our employment directors, who have chaired the advisory committee for that

center. And we have employed Workplaces students part-time, and subsequently hired graduates of the program.

The philosophy of Workplaces and its potential for increasing people's chances for a career of their choice make it worth extending our commitment. But the program has suffered from some serious shortcomings, primarily of local origin:

- Industry support was poorly developed, and consequently unstable;
- The program has no permanent home, its gypsy lifestyle detracting from the development of long-term goals;
- Its funding, much of it CETA-based, has fluctuated dramatically, jeopardizing many of its projects.

Recognizing these problems, we've formulated some solutions, and we expect Workplaces to be brought back on course.

Meanwhile, The Travelers has become involved in a second Hartford-based program only a year old—the School-Business Collaborative. The collaborative was formed by the Chamber of Commerce to bring together business people and educators to seek ways to cooperate. Its mission is to improve basic education in the Hartford schools, its aim to lower dropout rates and to achieve better overall scores on proficiency tests. It emphasizes improving the employability of graduates.

One objective is to expand and develop the school system's program of computer education. I don't need to elaborate on how important computer literacy has become. And, in the insurance industry, for all our sophisticated systems, we are hobbled by a lack of computer-literate workers.

The Travelers has committed five hundred thousand dollars to a five-year program that will bring computer literacy within reach at the Hartford schools. It's a foresighted program that involves buying the hardware, and, more importantly, developing the necessary software to make the machines useful and to train teachers to use them.

Under this approach, students will get their first taste of computers in elementary school. Middle school students will work extensively with computers, and high school students will use them on advanced math and business problems.

We intend to remain involved in this program for five more years, viewing it as an opportunity for public-private partnership.

Recently The Travelers, borrowing from the success of a program designed by DuPont for potential engineers, developed a program for our third group—the high-potential high school student. Its goal is to encourage minority students to set their career sights on that goal so near and dear to the hearts of insurance people, the actuarial profession.

We're particularly hopeful about our Minority Actuarial Program—MAP, as it's known—because it's so desperately needed. If you held a dinner party, and invited every black in the United States who is a fellow of an actuarial society to come, you probably could seat that group at your dining room table. That's a sad statement.

MAP is one step in the right direction. Our first step in implementing this program was to identify mathematically gifted students. Here, as in every phase

of the program, we relied on close cooperation between our people and the schools. The selection committee, composed of officials of the Hartford school system and members of our actuarial and training staffs, considered grades, class standings, PSAT scores, and teacher recommendations in selecting students who would have the greatest potential to succeed.

The high school juniors we selected come from lower socio-economic strata. The program will be their first exposure to the corporate world. During the school year, we'll have them for an hour and a half each weekday. They'll get three days each week of intensive classroom training in math, writing skills, oral communication—the skills they'll need to score well on their college boards.

Then we'll fill in the other two days in the office, working with our actuarial staff. They will practice elementary actuarial science so that, in the summer when we have them all day, they can work full time learning basic programming, how to operate a CRT, and how to compile basic statistics.

Besides providing work experience, we'll match each student with a mentor who will discuss careers in the profession, preparation for college, and courses to select. Professional counselors will coach them on nutrition, attire, work attitudes, and the solutions to personal problems.

Obviously, we want these students in colleges where they can develop their potential. We'll provide some financial support once they're in college, and we'll continue the summer internships through all four years. We will help them to attend seminars in basic actuarial studies. And we'll encourage them to study for and take actuarial exams.

And, in the end, we hope they'll go on to become Fellows in the Society of Actuaries or the Casualty Actuarial Society. Maybe they'll even work for The Travelers.

It's a lot to hope for, and we've started off small; we have three minority students enrolled this first year. Next year we'll add three more, and so on, until eventually we'll have 24 students ranging from high school juniors to college seniors enrolled. And if we develop even one actuary out of each class, we'll call our program a success.

The results of our first few months are encouraging. The initiative and the motivation of these students are greater than we ever hoped for. I can assure you we'll follow this program closely, so that the students get every opportunity to take a place in one of the insurance industry's key professions.

The Travelers, the insurance business, the nation as a whole—we've all been involved in failures and successes in our 20 years of experimentation with job training programs. And we've learned some lessons.

We've learned that you can't train people first, then look for jobs to give them—that successful bridges rise from the ghetto and are firmly anchored to jobs at the other end. We've seen too many cantilevered bridges to nowhere, which the unemployed pass over only to drop right back where they started. Our MOST/BEST program embodies that hard-earned knowledge.

We've learned that schools and businesses should do what they do best, and not try to accomplish each other's functions. Our school-business collaborative outlines a framework for synergism, within which business and education can concentrate their expertise where it will yield the greatest results.

And we've discovered a lode of talent in our high schools waiting to be

mined—talent that, like any precious resource, will take time and money and hard work to refine.

So now you have our experience—and a few of my own views—on several approaches to helping to solve the problem of functional illiteracy.

SOME RESPONSES TO THE LITERACY PROBLEM

Education New York State Education Department

Willard Daggett

Willard Daggett is Director of the Division of Occupational Education Instruction, New York State Education Department, where he is responsible for coordination of the State's instructional programs of agriculture, business, health occupations, home economics, industrial arts, merchandising, technical, and trade and industrial education. He also supervises the Department's five practical arts and occupational education instruction and development bureaus and has written many articles and research papers for professional publications.

I would suppose that, at one time or another, everyone here has heard, if not used, the disparaging remark that whatever "should be given back to the Indians!" I submit that had the Amerindians of the 17th century possessed a written language that recorded the battle tactics of victorious ancestors, rather than relying on the memory of elders and the ingenuity of their leaders, they might not have lost anything to the European invaders for us to give back.

In the past 100 years the importance of literacy in people's lives has increased exponentially. The minimally literate "embattled farmer" of April 19, 1775 could feed his family and about three other persons through the agricultural knowledge passed down to him by his father. The farm worker of May 6, 1983 can feed 80 people through his literacy in the diverse and complicated technology of today's agriculture. Further, literacy has become more important in the function of the 5.2 nonfarm workers required to give each farmworker the things he needs, or to process, transport, and merchandise that farmer's products—and to the many workers whose employment has no direct relationship to agriculture—as advancing technology changes.

Education exists within the larger context of society as a whole. As society changes, education must also change, if it is to fulfill its mission of preparing people to thrive.

The present educational system developed as this nation emerged from an agricultural society, where the preponderance of education was on-job training, to become an industrial power in which children in school learned the skills needed by an industrial society. Our nation is now undergoing another transformation. As other once agricultural, and even pastoral, societies became industrialized, we have begun evolving into a technological society. Our educational

system must also change to provide the highly trained personnel that technology requires.

Five years ago, recognizing that basic changes were occurring, the New York State Education Department reviewed its system of vocational and practical arts education, to ensure that through the remaining years of this century we would be preparing our students for the society which would be, not for the society which was. In this review process, which we called "Futuring," we have relied upon business and industry to determine what skills and knowledge will be needed in the next 15 years, and upon educators in-the-field and social scientists to recommend how these should be taught.

Committees were empaneled for the several vocational and practical arts education instructional areas. Each 20-member committee consisted of five to seven representatives of businesses and industries of various sizes—a social scientist, a teacher-educator, a student, and secondary and postsecondary level teachers and administrators. A schedule of issues was developed for deliberation at bimonthly meetings through two school years. Although the issues covered a broad range of aspects, such as the purposes and objectives of occupational and practical arts education and their instructional areas, student populations to be served, skills and knowledge in which graduates must be competent—even education governance and finance—the committees identified a group or core of competencies which graduates of every instructional program should achieve and education of each student in a continuum of related learnings, rather than a sampling of the contents of variously arranged educational boxes.

The skills and knowledge which form the core of every student's education have been classified into five groups:

I. Personal Development

1. Personal Skills
2. Self-Concept
3. Personal Appearance
4. Health
5. Use of Leisure Time
6. Adaptability
7. Decisionmaking
8. Problem Solving
9. Interpersonal Relationships
10. Social Skills
11. Participation and Interaction with Groups and Organizations
12. Leadership
13. Career Awareness/Exploration/Information
14. Goal Setting/Career and Education Planning
15. Job Application
16. Job Retention, Including Work Habits
17. Job Progression and Change
18. Employer and Employee Relations

II. Social Systems

1. Economic Concepts
2. Political Literacy
3. Legal Literacy

III. Information Skills

1. Verbal Communication
2. Nonverbal Communication
3. Listening
4. Written Communication
5. Reading Comprehension
6. Computation
7. Information Retrieval
8. Dictating Communication Skills

9. Keyboarding Skills
10. Use of Information Systems

IV. Resource Management

1. Money
2. Time
3. Natural Resources
4. Human Resources
5. Consumer Skills

V. Technology

1. Concepts of Technology
2. Developing Technologies
3. Applications of Current and Emerging Technologies
4. Use of Basic Tools and Equipment
5. Work-Related Health and Safety
6. Personal Safety

The new "basics" of the core competencies emphatically include LITERACY! And literacy is the first requirement for employment in the technological and service occupations that are replacing industrial production in New York State's economic base. The new employment opportunities in such fields as avionics, biomedical engineering, environmental and energy technologies, computer maintenance and repair share with such more established fields as electronics, agriculture, and health technology, a dependence on the literacy of those involved not only to function today, but to acquire skills and knowledge for tomorrow.

The "Information Revolution" is continually creating new demands on individuals, ever more rapidly changing the knowledge and skills needed for fully participating in society. Our system of education must be dynamic, capable of rapid, smooth change to meet the needs of the workforce—both adolescents preparing for entry, and adults needing new skills. Further, it must prepare students to expect and accept constant change, and a lifelong education.

To this end, the education system must teach students how to learn. It must provide to students the means to attain broad, transferable skills—communication, problem solving, decisionmaking, resource management, computer literacy—which will form a foundation for the building of job-specific skills, within and outside the formal educational setting.

The educational system must enable students to proceed through advanced levels of mastery without duplicating instructional experiences, and without gaps in necessary learning. Occupational education must join with general education, and articulate with postsecondary education in providing to each student that instructional continuum that the Futuring committees recommended.

A three-phase structure will be established to ensure a continuous process of education. The foundation phase will provide many of the required basic concepts in the core competencies, and lay the groundwork for further learning. As now, this phase will be primarily the responsibility of general education's elementary school curriculum. The development phase will expand student knowledge through introduction of additional core competencies and application of higher levels of learning in occupational and living skills programs. This phase serves as transition from basic learnings to specialized programs. The concentration phase focuses learning on areas of the student's interests and abilities, in preparing students for advanced education or employment. The current eight separate programs of vocational and practical arts education will be coordinated in a unified, modular curriculum which, while maintaining the unique aspects of those programs, allows the student to

construct the best instructional ladder for reaching occupational goals.

The modules, being small segments of instruction, will be easily revised or replaced in response to changing occupational and social needs. The modules will be organized in five areas of concepts and skills: personal development, social systems, information skills, resource management, and technology. The basic concepts of each area would be taught in the foundation phase, more advanced concepts and exploration of their applications in the development phase, and specific applications in the concentration phase.

Flexibility for local education agencies is an inherent feature of this approach. The state education department will assume leadership in identifying, through continuous interaction with business and industry, the skills and knowledge to be included in the instructional programs, and will provide a system for measuring student achievement. Local districts will be free to organize the modules in the development and concentration phases into the configurations which best meet their students' needs and are appropriate for the district's resources. Core competencies are, of course, required of all students.

In the basic literacy areas of the "Three R's," New York's Regents Competency Testing Program ensures that all students develop adequate skills in reading comprehension, writing, and mathematics before being graduated from high school. Students may demonstrate competence in these fundamental skills by passing pertinent Regents Competency Tests (RCT) or specific standard Regents subject examinations, or by obtaining minimum acceptable scores on the College Board's Scholastic Aptitude Test or the American College Testing Program test. Alternate procedures are, of course, provided for testing students with handicapping conditions and students whose native language is other than English.

Early identification of students needing special help in these areas is provided through screening tests administered at specified grade levels between grades 3 and 9. Schools are required to provide remedial programs for students who score below reference points on the the screening tests or fail a final competency test. The remedial instruction must be designed to enable students to demonstrate these competencies by the time they are otherwise qualified for graduation.

Most students take the mathematics Regents Competency Test in grade 9; the reading and writing are tested most often in grade 11. In 1982, 109,802 Regents Competency Tests in reading were administered, with 95.1 percent passing, 112,735 RCTs in writing showed 79.8 percent success; and 62.8 percent passed the mathematics RCT. In June 1982, there were 223,777 candidates for high school graduation in New York State. Of these, only 1,555 did not receive a diploma because of failure to meet the competency testing program standards.

A success rate of 99.3 percent is, of course, short of perfection—but when the recommendations of our Futuring committees are implemented we'll be doing something about that.

SOME RESPONSES TO THE LITERACY PROBLEM

Education Two-Year Colleges

Connie Sutton

Connie Sutton is Vice President for Professional Services and Secretary to the Association at the American Association of Community and Junior Colleges. She is responsible for planning and coordinates the association's program of professional development. Ms. Sutton serves on numerous national boards and advisory committees. Her career in community colleges began at Miami-Dade Community College (Florida) in 1965, where she served in several capacities.

Since the early 1960s, the community college movement has grown from 700 to 1,219 community, junior, and technical colleges that now enroll approximately eleven million credit and non-credit students. A community college currently exists in all but fifteen Congressional districts.

As we examine the community college response to the literacy issue, it is important to understand the historical and social context of their development and acceptance during the past few decades. The nation experienced turmoil in the 1960s, when most community colleges opened their doors for the first time with a strong commitment to educational opportunity for all. One result was an unprecedented enrollment that included significant numbers of students whose prior educational experience made it difficult for them to adjust academically to higher education. A decade earlier most of those students probably never would have moved beyond the secondary level. Attempting to meet the educational needs of this diverse student population set the stage for strengthening the community college's capacity to respond to today's literacy problems.

Initially, community colleges legitimized remedial or compensatory education at the postsecondary level. Later, they expanded these to the broader concept of developmental education, which embodied not only the teaching of basic reading, writing, and computational skills, but also counseling and other support services to help students adjust to college. The developmental education concept characterized the early community college response to literacy concerns. Today, these institutions continue to strengthen their role as providers of education to the so-called "non-traditional" and academically underprepared student.

In addition to helping persons who were underprepared for college-level courses, community colleges in the 1960s and 1970s made a strong commitment to providing community-based educational services to local citizens. Two

factors were responsible for this emphasis. First was the realization that community colleges, by their very nature and location, were community-used institutions that served a variety of needs for residents. The second had to do with the average age of their students, which rose, in the past decade, to about thirty.

The first students in this adult age group were women who were reentering the work force or going back to school part-time while rearing families and/or laboring in low-skill occupations. The addition of these persons led the colleges to broaden their mission and role definition once again, this time to include helping adults develop and make significant personal and economic contributions to their communities. Now, in the 1980s, the term "lifelong education" has been adopted as a natural outgrowth of the earlier community-based, community services orientation of community colleges.

Community colleges evolved, then, from dispensers of developmental education to providers of lifelong learning broadly focused. Most recently, a third thrust has been added to the community college response to literacy: the formation of mutually beneficial coalitions and cooperative arrangements between two-year colleges and business and industry. This has been a direct response to the urgent need for local job training and re-training. The programs developed by community, junior, and technical colleges involve not only direct skill courses, but once again employ a lifelong learning approach to personal development.

Because community college responses over the past three decades have been so numerous, these colleges are often accused of trying to be all things to all people. But the strength of the community college movement has always been its willingness and ability to respond to new needs swiftly and creatively, because it is bound by few traditional trappings. For many, community, junior, and technical colleges inspire hope and a new lease on life.

The American Association of Community and Junior Colleges (AACJC) is promoting national leadership for human resource development in all its diversity and in all that the words connote. This national association provides vision, information, and assistance to programs that promote long-term investment in human capital. Because its community, junior, and technical college members have the capacity for advancing this movement, AACJC hopes the concept will take hold in communities and be translated into workable educational programs.

In this era of technology, there is an urgent need to re-think the concept and definition of literacy. Can we strike a balance between technical and skill training and life lived, enjoyed, experienced, and simply appreciated? Literacy embodies all of this.

As we close this conference today, I encourage you to think of literacy in its broadest sense and to think of our involvement as advocates of a literate society in the broadest terms. Literacy is not only what we need to know to survive in the modern age. It is also what we can do to help others achieve and grow. The teaching of literacy ought not to be a self-centered enterprise, but a caring one. The great spiritual underpinning of this country is that it has always cared about its people as individuals. As we think and talk about literacy, I challenge you to include in your definitions the capacity for self-development and for encouraging self-development in others.

FUTURE DIRECTIONS FOR LITERACY EFFORTS

Harold L. Hodgkinson

Harold L. Hodgkinson is a Senior Fellow at the Institute for Educational Leadership, where a Shaughnessy Fellowship from the U.S. Department of Education enables him to study business and education alliances. He was President of the National Training Laboratories until 1982 and, before that, Director of the National Institute of Education. Dr. Hodgkinson was Dean of the School of Education at Simmons College, Dean of the College at Bard College, and Research Director of the Center for Research and Development in Higher Education at the University of California at Berkeley.

Of special interest to me is the increasing awareness of the fact that schools are devilishly hard to change. They don't get better much faster; it takes a lot of time. The old expression is that changing the curriculum is as hard as moving a graveyard. If that's true, why is it that we today have this sudden infusion of concern about education in America? Not only is it the Commission on Excellence. The Education Commission of the States reports next week; the Carnegie Commission reports this summer on the status of the high schools; after that the Sizer report will deal with the same thing. Then we will have a report from John Goodlad on teaching. In 1983, 22 national commissions will make reports on the condition of public education.

Public Education is Changing

Why in one year do we have what will actually be 23 reports? It seems to me the variable is not the condition of the schools. The variable is our concern about them—two or three major factors.

One is the human capital investment notion that for most of American business investing in people is now a major part of their investment strategy. They can calculate a return just as one can calculate the return on any other investment.

And, the second has to do with the fact that in a time like this, we are moving out of what I call the "psychic depression." De Tocqueville pointed out that every 15 or 20 years or so we simply get depressed, beat our breasts and say we can't do anything. The Japanese are going to beat us . . . it's the end of the world. Indeed, there are occasions when I'm reminded of a tombstone I saw in Laramie, Wyoming that carries the inscription, "See? I told you I was sick!"

Let me present some data on the positive side. This is probably our most carefully guarded secret in the United States: Reading scores are up in most elementary schools! The CIA would be proud of the small number of Americans who know these data. They're absolutely accurate! The reading tests used are the Iowa tests of basic skills, verbal and comprehension. It's also true for math scores. Big city school systems, with an average of between 65 to 90 percent minority students, have significantly improved their reading scores.

And, we've got a pretty good idea why the scores are going up. These are not aptitude scores, nor SATs, this is achievement—how well people can read. Although Paul Delker today gave us a description of just how ambiguous that notion is of how we calculate reading proficiency, we've learned another important thing about reading programs, and that is that there is no one best program. There are factors that successful reading programs have in common. And they have to do with the environment of the school. This is a very important finding. We were searching for the magic textbook; now we've begun to realize that if you can change the school environment, you have a much better chance for successful programming. We've learned that the principal is the key instructional leader. We've learned that improvement occurs school by school, and not district by district. That's the unit of educational improvement—the individual school.

Finally, we've learned that the problems lie not in basic skills, addition, multiplication, subtraction, and division. You can go into any public school in the United States, and I'll bet that almost all the young people you talk to can add, subtract, multiply and divide successfully. The trouble is that if you give them a new problem they haven't seen before, they'll add when they should have divided.

The problem is not math *skills*—it's math *reasoning*. Similarly, with literacy, the students can identify words and say that c-a-t spells ka-a-t and that forms into cat, but in grade 7, when the problems start to get more complex, and analytical reasoning is required, that's when comprehension scores begin to decline. Grade 7 is the beginning of the decline of comprehension.

But we have a misguided notion, I think, of what the schools are doing well and what they're doing poorly. These skills, incidentally, which have to do with problem solving, have been shown to be highly related to successful student careers and those of industrial managers, medical staffs and sales managers. So we've learned some basics that apply not only to schools but to the world of work—conceptual problem-solving.

And that's another reason why businesses, I think, are so interested in education, and vice versa. We're beginning to develop a common language. We haven't done it very well, but it's a good beginning.

Finally, I think it's interesting in terms of just what we know about schools, that Headstart works. One of the reasons that it's still in the budget is that it works. Investing $6,000 in Headstart is going to yield a $15,000 savings to the child and parents in this society in the eighth grade. And the Headstarters aren't even through high school yet.

So we're beginning to track that program, and we've discovered that it works. It behooves us to begin using that knowledge to see if we can provide the same

kind of opportunity for the overwhelmingly large number of youngsters who are not allowed into the program.

In 1950, only one of four blacks graduated from high school, and only 56 percent of the whites. Would anybody here argue that the 75 percent of the black youth population that did not graduate from high school was reading better than the 75 percent of the population of black kids who do graduate from high school today? All the data I've seen suggest that if you test the whole cohort, not only those in high school, but the whole cohort of 18-year-olds, there is no question that today's entire cohort is better than the entire cohort in 1950. The agenda we've given the schools is access and performance. If that's not the agenda, if we're to forget access and move to quality in a way that will limit access, somebody had better tell us whom to ignore.

Indeed, if you want to look for value added in terms of score gains of any component of the public school populations, the limited test score data we have on the handicapped 20 years ago, compared to the test score data we have on the handicapped today, show that they have increased their achievement level more than any other cohort in the schools. If that isn't quality, then I have to be told what quality is.

A major problem we still have, however, is two fold: Computers are in schools, but if you look at the percentage of school children with poor socio-economic backgrounds, their access to computers declines proportionately. In other words, the more poor children in a school, the less likely it is that they will have access to computers. I'm convinced that stratification is going to be on access to information. Those of us who have information are going to be the have's and those of us who don't have access to information are going to be the have-not's. That's a problem that the schools still face.

The last problem for schools has to do with the fact that in the West we have increases in public enrollment that are going to demand a different kind of educational initiative in those states—the literacy problems will be different. And, the East will continue to decline in student enrollments. These problems create dynamics that will make the United States more different by region than it is now.

An educational policy created in Washington that works in Arizona is probably going to fail in Michigan. And how we treat the different regions of the country in a way that will encourage all students to read at an excellent level is a problem.

Look where the black youths are concentrated—in which in the next decade, we're anticipating a 20 percent increase—and then superimpose on that those states that expect an increase in Hispanic youths, and you begin to see a new view of the nation. These are areas in which literacy training, counseling and motivation programs are going to be needed more than ever.

We may need to re-do our strategies in those states rather considerably. Indeed, we have slipped up on the number of minority youth going to public schools in these states. I was overwhelmed by the data from the Office of Civil Rights that came out a couple of months ago. In New Mexico, 57 percent of all public school enrollment is minority. Doesn't it sound a little "funny" to talk about 57 percent of any group as a minority? Mississippi, 52 percent; Texas, 46

percent; California, 43 percent; Florida, 32 percent; New York, 32 percent; Arizona, 33 percent; Maryland, 33 percent. All that is to suggest then that the minority youth cohort is expanding the quickest. And that group is not expanding because minority birth-rates have increased so much, but because white birth-rates have declined so much—a terribly important difference.

So, in our big-city school systems, those systems are virtually "minority-majorities." There's no question in my mind that those schools have a lot of money, talent and visibility, and have had increasing achievement scores in reading. Those are the schools that should be in many ways the "barometer schools" for the future. If those schools can continue their success rates, that's important to the nation. It is important that their students succeed.

I don't think it's fair to blame all this on the schools. We are now in the middle of our second largest wave of immigration. I live in Old Town Alexandria; we have about 2,000 Taiwanese children. There is no teacher in the Alexandria public schools who speaks Chinese. What do we do about that? Very tough question; very little money.

The schools are automatically assumed to be able to convert those 2,000 folks and make Americans out of them, generally within two or three years, with no additional funding—a relatively difficult task. Few nations would even attempt it.

Jobs are Changing

A couple of comments about business. It does seem to me that the Gross National Health is not effectively measured by the Dow Jones average any more. The part of our economy that's been in difficulty is the smokestack part. But at the same time, the part of our economy that's really moving is the information part. The literacy skills of the two are different. It does not mean that you don't have to read and write to make things. And it doesn't mean that you need to have a Ph.D. from MIT to work effectively in information services. The literacy demands differ by SIC code of the industry.

While I commend the insurance business for its forward-looking role in this debate, I also think it's important to realize that other industries have different roles that they are playing, too. As several speakers have pointed out, our economy is moving rapidly toward a service-oriented job force. About 12 million jobs were created in the last decade, four-fifths in services. Information services, of course, are the most rapidly growing part of the service economy.

The last thing about jobs that I think is really important has two phases. The first is that most of those 12 million new jobs weren't created by the "Fortune 500." They were created by this interesting group of 580,000 people a year who take their life savings out of the bank and start a new business.

How do we help those small firms with literacy problems? The most difficult thing I can imagine in terms of looking at the work force has to do with the ten *most rapidly growing jobs*. If you look at ***Table A*** you can see, obviously, that most of them are "high-tech," although I'm still confused about what high-tech is. ***Table B*** illustrates the Rapid Rate of Growth of those particular occupations. Some people have said these are the skills that everybody is going to need in 1990 to be able to be in the work force at all.

Table A

Technological Concerns
Most Rapidly Growing Occupations

Occupation	*Percent Growth In Employment, 1978-90*	*Number of New Jobs by 1990*
All Occupations	22.5	21,980,000
Data Processing Machine Mechanics	147.6	96,572
Paralegal Personnel	132.4	39,310
Computer Systems Analysts	107.8	203,357
Computer Operators	87.9	151,100
Office Machine and Cash Register Servicers	80.8	40,668
Computer Programmers	73.6	153,051
Aero-Astronautic Engineers	70.4	41,315
Food Preparation and Service Workers, Fast Food Restaurants	68.8	491,900
Employment Interviewers	66.6	35,179
Tax Preparers	64.5	19,997

Source: *Monthly Labor Review*

Table B

Job Skills for 1990

1. Evaluation and analysis
2. Critical thinking
3. Problem solving (including math)
4. Organization and reference
5. Synthesis
6. Application to new areas
7. Creativity
8. Decision making with incomplete information
9. Communication skills in many modes

Source: *Information Society, Denver, 1982.*

Now I don't know about you, but that's pretty heavy stuff. I have a doctorate from Harvard, and on a good day I can do, maybe, two of those. But who in the room wants to volunteer as being an expert on "decision-making with incomplete information"? We do it all the time, we muck around. So those job skills are, I think, based on the questionable notion that these rapidly growing jobs, by percent of growth, are the core of the whole job structure of tomorrow.

If you look at the total number of new "high-tech" jobs needed by 1990, however, it's very small compared to the nation's need for 21 million new

workers or new jobs, at any rate. So we have a very rapid high-tech increase but a very small net. Where are the new jobs going to be? Janitors, nurses aids, salesclerks, cashiers, waiters, waitresses, general clerks, professional nurses, food prep, secretaries, and truck drivers. Not a "high-tech" in the lot! Indeed, we'll have six of those jobs for every "high-tech" worker!

Look at the numbers! What kind of literacy will a truck driver need in 30 years? Truck drivers are going to operate some sophisticated machinery. It is amazing how much a truck driver needs to know in terms of literacy and numeracy skills. Similarly, with janitors and folks who clean rooms. Several hotel chains that invested a large amount of money in developing an automated maid found that it's very difficult.

This is my wedding ring. If we took my wedding ring and took three or four of yours and put them on the table with four pop-tops from beverage cans, there is no way at present that a machine could distinguish all wedding rings from all pop-top rings although they're all so different. A good maid can do that in two seconds; no computer could. Draftsmen, on the other hand, as Computer Assisted Design has discovered, are virtually obsolete because what they do is linear and almost entirely predictable. A software package allows the engineer to draw a blueprint right out of the computer.

So as we think about high-tech, what are we talking about? Worker skill? Is that high-tech? Or is it manufacturing processes? Is that high-tech? Or is it the products? Many high-tech products are not made through high-tech skills. And it's very important to realize that steel is not necessarily a high-tech industry, but

Table C

Technological Concerns
Largest Numbers of New Jobs

Occupation	*Growth in Employment In Thousands, 1978-1990*
Janitors and Sextons	671.2
Nurses' Aides and Orderlies	594.0
Sales Clerks	590.7
Cashiers	545.5
Waiters/Waitresses	531.9
General Clerks, Office	529.8
Professional Nurses	515.8
Food Preparation and Service Workers, Fast Food Restaurants	491.9
Secretaries	487.8
Truckdrivers	437.6

Source: *Monthly Labor Review.*

depending on the kind of steel made, some high technology processes are used.

So when we think about literacy as it relates to the work force and we talk about high-tech, we've got to be very careful about whether we're talking about skills, processes, or products.

Finally, I am convinced that we're going to have a big problem in the growth of the jobless, which is what happened to our agricultural force. We had about 12 million farmers in 1910. Now we have about three million. Three million grow twice as much food as the 12 million did in 1910. I think that's what is going to happen to manufacturing. Smaller numbers of workers will produce more and more things. A General Electric plant is the best example I know. Normally, 68 machine operators take about 16 days to make a railroad locomotive. The General Electric plant makes one locomotive frame a day, and there are no workers on the line. There's a manager, and a button that says on and off, he pushes it to on, and the line makes locomotive frames. There is one person down below with a wrench who makes sure that everything is okay. Is that a net gain? Yes, in terms of productivity. But how about the 68 machine operators? Are they going to be happy white-collar clerks after working with machines and metal for most of their lives? I don't know, but I doubt it.

Literacy, the Workplace and Education

What I'm optimistic about, however, is that we've got a lot of people concerned about education. Conferences like this are going on all over the country. I've been to three this week in which business, education, and government have begun to talk about our problems. Indeed, it's very interesting to begin looking at the array of educational programs that operates even within a very short view of business. Scott-Foresman, for example, has established an excellent lifelong learning division which will create reading textbooks for older Americans that will enable them to be at least as literate as third graders.

So, we're beginning to find that these markets are disaggregating. In the old days, education belonged to colleges, at least past high school. You borrowed money from a bank. Research was done by universities. And if you had problems with your health, you went to a hospital.

Today you can be educated by AT&T; you can be educated by TRW. If you happen to work for any one of about 300 firms, you can get not only credit toward a degree, but you can get a promotion certificate which means you go to the top of the promotion line. If you want to borrow money from a bank you can, but Sears is our number one money lender, and likely to move even further ahead.

Universities are doing basic research, but so is business, private R & D, the military, and the government. And, indeed, we've discovered that hospitals are very poor places to go if you want to improve your health.

Putting that all together as we consider literacy in the workplace, I think we need to begin thinking seriously about the three major dimensions of our economy. We are the most effective agricultural nation in the world. We are also a very effective manufacturing nation. And one of the things that we can credit the Japanese for is giving us a shot so that we have to respond. That's when America truly gets going. As Studs Turkel said, in America the juices are flowing

again. We're talking, planning, debating, arguing, getting together on what to do—and that's what we do better than anybody else.

So how do these three relate to each other? And what of the literacy needs of each? That seems to me to be the kind of question to which this conference lends itself nicely. My hope is that this is the first of a number of ventures. We need not gloss over our differences, but to point them out so that the areas in which we can agree can become larger and a more important part of our agenda.

CONFERENCE PARTICIPANTS

Robert Adams
Second Vice President
Advertising and Public Relations
Provident Mutual Life Insurance
P.O. Box 7378
Philadelphia, Pennsylvania 19101

Charles Allen
Executive Director
Maryland Council of Teachers of English
415 East 31st Street
Baltimore, Maryland 21218

Bettye B. Baldwin
Vice President Human Resources
Home Life Insurance Company
253 Broadway
New York, New York 10007

Douglas L. Barber
Vice President
Future Business Leaders of America/ Phi Beta Lambda
P.O. Box 17417 Dulles
Washington, D.C. 20041

Paul Barton
President
National Institute for Work and Learning
1302 18th Street, N.W., Suite 501
Washington, D.C. 20036

Jean Bathhurst
Executive Director
American Institute of Banking
5010 Wisconsin Avenue, N.W.
Washington, D.C. 20016

Robert W. Bier
Regional Director
Press and Editorial Services
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

Milton Bins
Senior Associate
The Council of the Great City Schools
1413 K Street, N.W., 4th Floor
Washington, D.C. 20005

Richard A. Boudreau
President
Fisher Junior College
118 Beacon Street
Boston, Massachusetts 02116

Dan Bonner
Acting Director
VISTA Service Learning Program
806 Connecticut Ave., N.W.
Room 1100
Washington, D.C. 20525

Joel L. Burdin
School of Education
Ohio University
Athens, Ohio 45701

Susan Breinholts
Guggenheim Productions
3121 South, N.W.
Washington, D.C. 20007

Joe Cannon
Career Development Programs
District of Columbia Public Schools
415 12th Street, N.W.
Washington, D.C. 20004

Jean Coleman
Coordinator, Director
Coalition for Literacy
50 East Huron Street
Chicago, Illinois 60611

L. William Collins
Manager, Personnel Development and Training
U.S. Life Corporation
125 Maiden Lane
New York, New York 10036

Jane Cooper
Manager, Career Planning Area 13-K
The Equitable Life Assurance Society of the United States
1285 Avenue of the Americas
New York, New York 10019

Constance T. Cordovilla
Program Coordinator
Center for Corporate Public Involvement
American Council of Life Insurance/ Health Insurance Association of America
1850 K Street, N.W.
Washington, D.C. 20006

LeRoy A. Cornelson
Director, Division of Vocational Education
Education Services
U.S. Department of Education
400 Maryland Avenue, S.W.
ROB 3, Room 5636
Washington, D.C. 20202

John P. Creighton
Staff Specialist
Adult Basic Education, Division of Instruction
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201

Willard R. Daggett
Director, Occupational Education
New York State Education Department
99 Washington Avenue
Albany, New York 12234

Paul Delker
Director
Division of Adult Education Services
U.S. Department of Education
400 Maryland Avenue, S.W.
ROB 3, Room 5610
Washington, D.C. 20202

Regina Dolan
Program Coordinator
Education Services
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

John T. Doulin
Customer Relations
Nationwide Life Insurance Company
One Nationwide Plaza
Columbus, Ohio 43216

James C. Doyle
Assistant Vice President
Manpower Development and Employee Relations
Metropolitan Life Insurance Company
One Madison Avenue
New York, New York 10010

Richard C. Durkee
Second Vice President-Organizational Development
Transamerica Occidental Assurance Company
P.O. Box 3653
Los Angeles, California 90051

Iris M. Elfenbein
Director
Teacher Education Program
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

Penelope Engel
Associate Director, Washington Office
Educational Testing Service
1800 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Robert Fenn
National Director of Training
The Travelers Life Insurance Company
One Tower Square
Hartford, Connecticut 06115

Robert W. Feagles
Senior Vice President
The Travelers Insurance Company
One Tower Square
Hartford, Connecticut 06115

Michael Fox
Executive Director
Push Literacy Action Now Plan
2311 18th Street, N.W.
Washington, D.C. 20009

Susan Foster
Education Week
1233 New Hampshire Ave., N.W.
Suite 806
Washington, D.C. 20036

Edmund J. Gleazer
Professor of Education
School of Education and Human Development
George Washington University
Washington, D.C. 20052

Marjorie A. Gordon
Librarian, Information Services
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

K. Edwin Graham
Director
Education Services
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

Mary Ann Green
Manager, Public Relations
Mutual Benefit Life
520 Broad Street
Newark, New Jersey 07101

Mathew Greenwald
Director, Social Research
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

Martha Grundmann
House Budget Committee
207 Annex No. 1
Washington, D.C. 20515

Diane Halperin
Assistant Director
Office of Program Development and Planning
Neighborhood Development and Employment Agency
15 Beacon Street
Boston, Massachusett: 02108

Jean Hammink
Literacy Specialist
B. Dalton Bookseller
5001 Excelsior Boulevard
Minneapolis, Minnesota 55416

Richard Hansen
Corporate Vice President
New York Life Insurance Company
51 Madison Avenue
New York, N.Y. 10019

Patricia Harrison
Curriculum Coordinator
Public/Private Partnerships
District of Columbia Public Schools
Instructional Services
20th and Evarts Streets, N.E.
Washington, D.C. 20018

James F. Henry
President
Center for Public Resources
580 Fifth Avenue
New York, New York 10019

Jane M. Hill
Public Relations Specialist
National Council of Teachers of Mathematics
1906 Association Drive
Reston, Virginia 22091

Richard Hitt
Director, Staff Development and Program Evaluation
New Jersey State Department of Education
3535 Quakerbridge Road
Trenton, New Jersey 08619

Howard Hjelm
Occupational Literacy
U.S. Department of Education
400 Maryland Avenue, S.W.
ROB 3, Room 5042
Washington, D.C. 20202

Delores G. Hobbs
Occupational and Professional Programs
Division of Adult and Continuing Education
Maryland State Education Department
2418 St. Paul Street
Baltimore, Maryland 21218

Harold L. Hodgkinson
Senior Fellow
Institute for Educational Leadership, Inc.
1001 Connecticut Avenue, N.W., Suite 310
Washington, D.C. 20036

Margo Johnson
Edelfelt/Johnson Consultants
511 G. Street, S.W.
Washington, D.C. 20024

Stanley G. Karson
Director
Center for Corporate Public Involvement
American Council of Life Insurance/ Health Insurance Association of America
1850 K Street, N.W.
Washington, D.C. 20006

Eve Katz
Program Director, Education
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

John J. Kelly
Director of Corporate Training
The Travelers Life Insurance Company
One Tower Square
Hartford, Connecticut 06115

William F. Keough
Deputy Director, Regional Liaison Unit
Administrator of Education for Overseas Dependents
U.S. Department of Education
400 Maryland Ave., S.W.
Washington, D.C. 20202

William E. Kingsley
Executive Vice President
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

Carmela C. Kingston
Professor of Business
Trenton State College
Trenton, New Jersey 08625

Robert Knight
Executive Director
National Association of Private Industry Councils
1055 Thomas Jefferson Street, N.W.
Suite 510
Washington, D.C. 20007

Margaret G. Labat
Assistant Superintendent
District of Columbia Public Schools
Division of Adult and Continuing Education
Bryan School
Independence Avenue between 13th & 14th Streets, S.E.
Washington, D.C. 20003

William Lanxner
Staff Representative-Education Department
AFL-CIO
815 16th Street, N.W., Room 407
Washington, D.C. 20006

Juliette Lester
Education Program Officer
Education Services
U.S. Department of Education
400 Maryland Avenue, S.W.
ROB 3, Room 5636
Washington, D.C. 20202

Ruth Long
Associate Director
Association for Supervision and Curriculum Development
225 North Washington Street
Alexandria, Virginia 22314

Jerome E. Lord
Senior Research Associate
National Institute of Education
1200 19th Street, N.W.
Washington, D.C. 20208

Mary Ann Low
Executive Vice President
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

Helen MacArthur
Office of Deputy Assistant Secretary for Elementary and Secondary Education
U.S. Department of Education
400 Maryland Avenue, S.W.
Room 2189
Washington, D.C. 20202

John R. MacKenzie
Director
Labor Studies Center
University of the District of Columbia
724 Ninth Street, N.W., Suite 500
Washington, D.C. 20001

Andrew G. Malizio
Senior Research Associate
GED Testing Service
American Council on Education
One Dupont Circle, N.W., Suite 20
Washington, D.C. 20036

Richard Mallory
Instruction and Professional Development
National Education Association
1201 16th Street, N.W.
Washington, D.C. 20036

Donald C. Mann
Vice President for Public Affairs
The Prudential Insurance Company of America
5 Prudential Plaza
Newark, New Jersey 07101

Jorie Lester Mark
Chief, Services Section
Division of Adult Education Services
U.S. Department of Education
400 Maryland Avenue, S.W.
ROB 3, Room 5610
Washington, D.C. 20202

Charlotte Martin
Wisconsin Board of Vocational, Technical and Adult Education
4802 Sheboygan Avenue, Seventh Floor
P.O. Box 7874
Madison, Wisconsin 53707

Ruthie B. Mathews
Administrator, Most/Best Program
The Travelers Insurance Company
One Tower Square
Hartford, Connecticut 06115

J. William McVey
Scott, Foresman Company
1900 East Lake Avenue
Glenview, Illinois 60025

Joyce Milliken
Division of Adult Education
CREC
212 King Phillip Drive
West Hartford, Connecticut 06117

Lillian H. Mohr
Director of Consumer Organizations
U.S. Office of Consumer Affairs
1725 I Street, N.W., Suite 1009
Washington, D.C. 20201

Debra L. Ness
National Director, Human Resource Development
Service Employees International Union
2020 K Street, N.W.
Washington, D.C. 20006

Jean Netherton
Provost
Northern Virginia Community College
3001 North Beauregard Street
Alexandria, Virginia 22311

Herman Niebuhr, Jr.
Vice President for Planning
Temple University
Philadelphia, Pennsylvania 19122

Bonnie Pedinotti
Occupational Education
New York State Education Department
99 Washington Avenue
Albany, New York 12234

Mary L. Reiss
Director
Adult Extended Learning Services
Michigan Department of Education
Room 612, Michigan National Tower Building
Lansing, Michigan 48909

Sandra Robinson
Consultant
2602 Plyers Mill Road
Silver Spring, Maryland 20902

Patricia Rodger
Assistant to Assistant Secretary, OVAE
U.S. Department of Education
7th and D Streets, S.W.
ROB 3, Room 5102
Washington, D.C. 20202

Brian Schenk
Executive Director
Cambridge, The Adult Education Center
888 Seventh Avenue
New York, New York 10019

Richard S. Schweiker
President
American Council of Life Insurance
1850 K Street, N.W.
Washington, D.C. 20006

James P. Seeberger
Compensation Specialist
Baltimore Life Insurance Company
Baltimore Life Building
901 North Howard
Baltimore, Maryland 21201

Barry F. Semple
Director
Bureau of Adult and Community Education
New Jersey State Department of Education
3535 Quakerbridge Road
P.O. Box 3181
Trenton, New Jersey 08619

Norman Shapiro
Adult Education Project
School of Education
City College
Convent Avenue at 138th Street
New York, New York 10031

Paul Simon
U.S. House of Representatives
343 Cannon House Office Building
Washington, D.C. 20515

Linda Smith
Network Coordinator
Center for Applied Linguistics
3520 Prospect Street, N.W.
Washington, D.C. 20007

Marva Smith
Program Associate
American Home Economics Association
2010 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Frances Spinelli
National Adult Education Clearinghouse
Montclair State College
Upper Montclair, New Jersey 07043

Robert Stevenson
Executive Director
Association of Teacher Educators
1900 Association Drive
Reston, Virginia 22091

Connie Sutton
Vice President for Professional Services and Secretary
American Association of Community and Junior Colleges
One Dupont Circle, N.W.
Suite 410
Washington, D.C. 20036

James O. Tatro
Consultant, College and University Relations
Aetna Life and Casualty
151 Farmington Avenue, C341
Hartford, Connecticut 06156

Sally A. Ulrich
Manager, Education Services
Chamber of Commerce of the United States
1615 H Street, N.W.
Washington, D.C. 20062

Michael D. Usdan
President
Institute for Educational Leadership, Inc.
1001 Connecticut Avenue, N.W.
Suite 310
Washington, D.C. 20036

Rick Ventura
Executive Director
National Advisory Council on Adult Education
425 13th Street, N.W.
Washington, D.C. 20004

Diane Vines
White House Fellow
U.S. Department of Education
400 Maryland Avenue, S.W.
Washington, D.C. 20202

Peter A. Waite
Executive Director
Laubach Literacy Action
Box 131
Syracuse, New York 13210

Kristine S. Wilcox
Publications Director
Reading is Fundamental, Inc.
Smithsonian Institution
600 Maryland Avenue, S.W., Suite 500
Washington, D.C. 20560

John Wu
Deputy Assistant Secretary for Vocational and Adult Education
U.S. Department of Education
7th and D Streets, S.W.
ROB 3, Room 5102
Washington, D.C. 20202

James Wykle
Education Program Specialist-OVAE
U.S. Department of Education
7th and D Streets, S.W.
ROB 3, Room 5102
Washington, D.C. 20202

CONFERENCE PLANNING COMMITTEE

Paul E. Barton
The National Institute for Work and Learning

Paul Delker
U.S. Department of Education

Edmund J. Gleazer
George Washington University

John Kelly
The Travelers Insurance Company

John R. MacKenzie
University of the District of Columbia

Leonard Schneiderman
The Brookings Institution

Iris M. Elfenbein
K. Edwin Graham
Eve Katz
American Council of Life Insurance